

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 827.—VOL. XXI.]

London, Saturday, June 28, 1851.

[PRICE 6D.

IMPORTANT SALE OF VALUABLE MACHINERY, TOOLS, &c., AT THE CLARENCE FOUNDRY, LIVERPOOL.

M. T. M. FISHER AND SON will SELL, BY AUCTION, on Wednesday, the 2d of July, and 33 following days (Saturdays excepted), on the Premises, at Eleven o'clock in the forenoon, each day, all the valuable

MACHINERY, TOOLS, AND STOCK IN TRADE,

of that extensive establishment, consisting of THREE HIGH-PRESSURE AND ONE CONDENSING STEAM-ENGINES, with boilers, cisterns, pipes, &c., varying in power from 5 to 30 horses each.

TWO large and powerful horizontal BORING MILLS, the largest capable of boring cylinders 12 inches diameter, 14 feet stroke, and with a face-plate 11½ feet diameter, capable of turning 18 feet diameter; the other mill capable of boring cylinders 34 inches diameter, 11 feet stroke, with a face-plate 9½ feet diameter, capable of turning 12 feet in diameter.

Eight slotting or key grooving machines, capable of slotting on the largest size, 3 feet 6 inches deep, and 10 feet 6 inches diameter, down to the smallest articles on the smallest sizes, with self-acting slides in every direction: 15 planing machines, adapted for all kinds of marine, locomotive, and general engineering work, with capability to plane from 10 feet broad, 16 feet long, and 3 feet 9 inches high, on the largest, down to the smallest sizes; 2 large vertical boring mills, capable of boring 3 feet diameter and 3 feet deep, with tables, slides, &c.; 74 turning lathes, varying in size from 6 inches to 3 feet 6 inches, and consisting of all varieties of lathes—viz.: Heavy slide lathes for marine and locomotive work, Whitworth's slide screw-cutting lathes, 15-inch and 10-inch heads, with change wheels; back geared and single speed lathes, with beds varying from 4 feet 6 inches to 30 feet in length; 20 drilling machines, various sizes, 6 nibbling machines, 3 screwing machines, 2 nut-cutting machines, 6 punching machines, patent riveting machine, rivet and washer-making machine, bar cutting machine, 7 cwt. Nasmyth's steam hammer, 73 smtis' fires, with all the tools, cranes, and anvils in connection with them, 13 large and powerful foundry and erecting shop cranes, 7 travelling crab winches, 6 portable pillar and wall cranes, grinding and glazing apparatus, iron and brass foundry tools and utensils, weighing machines, beam mill, hydraulic presses, lorries, carts, wheelbarrows, and a most extensive and valuable assortment of patterns and plans of every description of engine and mill-work generally, including saw-mills, sugar-mills, rolling-mills, dredging machines, &c., besides a great variety of machines and tools, which will be fully described in the catalogues.

The whole will be on view any day prior to the Sale.

Catalogues are now ready, and may be had on the premises, and from the auctioneers, No. 29, Princes-street, Manchester, who will forward the same, on application, by post any time before the sale.

ROYAL COPPER MINE, NEAR LEEK, STAFFORDSHIRE.

M. WILLIAMS is instructed to DISPOSE OF ONE HUNDRED AND TWENTY-FOUR (1000ths) SHARES in THIS MINE. The lode is 20 yards wide: one miner can cut out from 1 ton to 1½ ton of copper ore per week—130 tons are now lying on the bank. The seller will guarantee 15 per cent. on the first year's outlay, with a reasonable prospect of realising 30 the second year.—Price £12 per share.—To view specimens, and for full particulars, apply to Bell Williams, land agent, 16, Castle-street, Liverpool.

TO RAILWAY CONTRACTORS, IRONMASTERS, ENGINEERS, RAILWAY CARRIAGE AXLE AND WHEEL MANUFACTURERS, AND HAMMERED IRON MAKERS, &c.—TO BE SOLD, BY PRIVATE TREATY, OR LET, all that valuable PROPERTY, known as

THE VULCAN IRON-WORKS,

situate at WEST BROMWICH, in the county of STAFFORD, comprising, in the FORGE DEPARTMENT—Two high-pressure STEAM-ENGINES, with 14½-inch and 10½-inch cylinders, blowing cylinder for refinery boilers, &c., complete; 3 hives, standards, bell plates, anvil, blocks, cam, carriages, brasses, &c., complete; driving wheels and shafting, 4 heating furnaces, refining charcoal fire, 6 smith's hearths, wrought-iron cranes, 3 large and powerful cast-iron cranes, and floor-plates—in the

ENGINEERS AND BOILERMAKERS' DEPARTMENTS—Four powerful PUNCHING ENGINES and SHAVING, 10-horse high-pressure STEAM-ENGINE, with two boilers and blowing fan; 8-horse high-pressure STEAM-ENGINE and BOILER, with gearing, turning and boring lathes, with face-plates, moveable poppets, &c.; slotting machine, by Parr, Curtis, & Co., iron shaving and speed pulleys, planing machines, face-plate, and other lathes, drilling and screwing machines, wrought-iron cranes and chains, and numerous other valuable effects.

The BUILDINGS are very extensive and well-arranged, comprising boiler-sheds, engine-sheds, fitting shops, store rooms, smithy shops, roofing over forge, carpenter's shop, upper and lower offices and dwelling-house. The whole surrounded by a boundary wall, enclosing nearly 7000 square yards of land.

The property is situate near to the Stour Valley, and to the Birmingham, Wolverhampton, and Dudley Railways, now in course of construction; it is intersected by an arm of the canal, and has a basin for unloading boats within the works, and is well situated both for land and canal carriage, and would be well adapted for a goods' station upon the Stour Valley Railway.

For further particulars apply to Mr. Thomas Spencer, Tividale; Chas. Edw. Molineux, Esq., West Bromwich; or to Messrs. Robinson and Fletcher, solicitors, Dudley.

CARMARTHENSHIRE.

TO BE IMMEDIATELY SOLD, OR LET, BY PRIVATE CONTRACT, on a long lease of years, upon moderate and advantageous terms, SEVERAL VEINS OF ANTHRACITE COAL AND IRON ORE, called the "Black-band," together with THREE FARMS, in the parish of BETTWS, containing about 112 acres of land.

There are FOUR VEINS OF COAL—one is 6 feet thick, and the three others above 3 feet each, which will yield such a quantity of coal as to produce, by a royalty of 6d. per ton only, upwards of £60,500. The Black-band is about 14 inches thick, and will yield, by the like royalty, upwards of £18,150.

There are, besides, several STRATA of RED IRON ORES on these premises, which, together with the value of the surface, are to be taken into consideration.

These premises are on the banks of the Aman, on the alignment of the Llanelli Railroad, and within about a quarter of a mile of it, on an inclined plane; and it is believed that the South Wales Railroad will form a junction with the Llanelli Railroad in the course of this year, whereby there will be a communication with all the kingdom.

There is also a QUARRY of very fine FLAGSTONES upon these lands.

For further particulars apply to Thomas Parry, Esq., to Mr. John Williams, solicitors, Carmarthen.—Carmarthen, June 10, 1851.

TO COLLIER OWNERS.—FOR SALE, BY PRIVATE CONTRACT.—THREE HUNDRED FATHOMS OF PUMPS, 11½ to 13½ inches in diameter; 3 brass working barrels, 12 inches in diameter, and 10 feet 6 inches long; 1 ditto, 12 inches in diameter, and 10 feet 6 inches long; 1 ditto, 10½ inches in diameter, and 10 feet 6 inches long. Also, bucket and slack doorpieces, spears, spear-plates, and bolts, and bottom-rods, complete, for six sets of pumps.

Application to be made at the Weymouth Colliery, Sunderland.

Weymouth Colliery, June 6, 1851.

IMPORTANT TO MINING GENTLEMEN.—TO BE SOLD, BY PRIVATE CONTRACT, a very extensive PLOT of MINING GROUND, 10 miles in length and 4 in width: 21 years' lease, of which nearly 20 years remain unexpired, at a good duty. Several mines of lead ore have been found in the ground, which are very likely to be productive; they are situate in the manor of Bainbridge, in Wensleydale, Yorkshire.—Application may be made to John Grime, Esq., of Leyburn, near Bedale; or personally to Mr. Edmund Peacock, Redmire, who will show the ground, and give all information about it.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the COMPANY PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on about the 10th of the month.

BOMBAY.—Passenger for Bombay can proceed by this company's steamers of the 29th of the month, to Mala, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA.—On the 20th and 29th of every month. CONSTANTINE.—On the 29th of the month. ALEXANDRIA.—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 17th and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

STIRLING'S PATENT YELLOW METALS—Adapted for SHEATHING, BOLT STAVES, BOLT NAILS, DECK NAILS, as reported on by the late Mr. Owen, Supervisor of Metals to the Admiralty; also for PROPELLERS, FRAMEWORK SCREWS, PISTONS, CYLINDERS, COCKS (particularly where there is exposure to corrosion), RAILWAY CARRIAGE AXLE BEARINGS, and for all machinery subject to friction. AGENTS.

Messrs. JOHNSON, 166, Buchanan-street, Glasgow.

Applications for licenses and other information to be addressed to the undersigned, ALFRED BARRETT, Bishopsgate Foundry, Skinner-street.

EXHIBITION OF 1851.—T. P. AUSTIN, proprietor of PEELE'S COFFEE-HOUSE, FLEET-STREET, begs respectfully to inform his friends and the public generally, especially those interested in the forthcoming GREAT EXHIBITION, that he has recently NEARLY DOUBLED THE SIZE OF HIS ESTABLISHMENT, which will enable him to afford increased comfort and convenience to those honouring him with their patronage. THE FILES OF NEWSPAPERS and PERIODICALS, for which Peele's Coffee-house is so celebrated, containing all the reports of the Royal Commissioners, will be available to those visiting this establishment.

* The Mining Journal, in addition to all Publications connected with the Mining Interests, are regularly filed.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, MINING BROKER, renews his OFFERS of SERVICE to CAPITALISTS seeking the means of SECURE INVESTMENTS, which can be made to yield an annual income of 15 to 20 per cent.

MR. CROFTS HAS SPECIALLY FOR SALE—

Alt-y-Crib (10 shares) Bodmin Consols (5 shares) Roylage, Leek (100 shares) South Tamar (30 shares) Spears Consols (30 shares) Warleggan (20 shares) Devon and Courtenay (50 shares) West Lovell (3 shares) West Gwisk (100 shares) West Wheal Josiah (140 shares) Wheal Lovell (3 shares) Wheal Mary (15 shares) Wheal Providence (53 shares) Wheal Spry (30 shares) Wheal Tremar (20 shares) Wheal Trascol (220 shares) Wheal Vincent (750 shares, 3000ths) Woodman's Well and Broadbridge (50 shares)

WANTED TO PURCHASE—Appledore.

The partial dullness in mining shares, and the consequent decline in prices, may be regarded as quite of a temporary character, and capitalists are reminded that the safest period to make purchases is in a depressed market, especially when, as in the present case, the depreciation arises chiefly from the increased value of money.

* Mr. Crofts is not a dealer in shares, but transacts business only for principals.

No. 4, King-street, Cheapside, June 28, 1851.

FRANCIS'S MINING OFFICES, 7, JOHN-STREET, ADELPHI.—The great importance of the Mining interest at the present moment renders it necessary that every means should be adopted to place its operations on the plainest and fairest foundation.

The system of representing the VALUE of MINES, by describing them as DIVIDEND or NON-DIVIDEND PAYING, is by no means sufficiently explanatory of their real qualities, or it is clear that mines may come under the first denomination which, nevertheless, differ greatly in value: for instance, some continue to divide large profits for a long time, and some in like manner small profits only, whilst there are others which pay dividends, large or small, as the case may be, but only for a very limited period. The selection of mining ground also requires the greatest care, which, in most instances, can only be applied by or through agents, qualified by long and successful practical experience, combined with local geological knowledge.

Mr. MATTHEW FRANCIS, who has, during the last 20 years, without interruption, been engaged as Manager of Mines abroad, as well as in Cornwall and Wales, many of which are making large profits, takes leave to announce, that he has OPENED these OFFICES, where he may be consulted daily from Eleven till Three.

N.B.—Information supplied, without favour or prejudice, as to the present condition and prospects of all mines without distinction, as far as can be ascertained by the closest attention to the best sources of knowledge.

* The TRANSFER of MINING PROPERTY (such only as is legitimate) negotiated on satisfactory terms.

MR. JAMES NAPIER, CONSULTING CHEMIST.—Mr. J. NAPIER respectfully intimates that he ASSAYS and ANALYSES OILS and METALS, and EXAMINES SOILS and ARTICLES used in the CHEMICAL ARTS and MANUFACTURES. He may be consulted on the application of his Reports to Manufacturing purposes, and is willing to give assistance confidentially in working out Chemical Patents.—Orders and sample-parcels may be addressed to the care of Messrs. Griffin and Co., 40, Buchanan-street, Glasgow.—Hamilton-place, Partick.

MR. ALFRED SENIOR MERRY, DEALER IN COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address: LEE-CRESCENT, BIRMINGHAM.

MR. JOHN DAVIES, MINING SHAREBROKER, NO. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.

MINING SHARES.—Mr. HENRY VATCHER, EXETER, OFFERS his ADVICE and ASSISTANCE to PARTIES willing to INVEST in the ABOVE SECURITIES. Ten years' residence in Exeter, together with periodical visits to nearly all the Mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, practical and experienced agents, so that if any inspection is required, the same can be done without delay.

MINING AND RAILWAY OFFICES, NO. 3, CASTLE-TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHAREBROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms and at one-half the commission usually charged.

MINING INVESTMENT.—THOMAS FULLER AND CO., 51, THREADNEEDLE-STREET, LONDON, have on hand DEVON CONSOLS NORTH: this mine is situate and adjoining the celebrated Devon Great Consols Copper Mine, having the same stratum of ground, and running parallel with and having the same great cross-courses, and within a short distance of the present rich lode of these productive mines, which, with £1 paid, are now marketable at £310, and paying £48 per annum in dividends.—T. Fuller and Co. have also SHARES in Appleford Silver-Lead, Wheal Caradon Copper, Peter and Mary Tavy Consols, Wheal Franco, &c., and will take pleasure in furnishing all particulars connected therewith.

MINING OFFICES, NO. 75, OLD BROAD-STREET.—Mr. T. P. THOMAS begs to inform his friends that he has REMOVED from No. 3, George-yard, to the ABOVE ADDRESS, where he hopes to receive a continuation of their favours.

MINING OFFICE.—3, GEORGE-YARD, LOMBARD-STREET.—Messrs. TREDINNICK & CO. (formerly of Three Kings-court and 52, Threadneedle-street, London) beg to inform their numerous Friends that they have RESUMED BUSINESS at the ABOVE ADDRESS, of PURCHASING and SELLING SHARES in MINES, RAILWAYS, and other PUBLIC COMPANIES, as well as the NEGOTIATION of every description of MONETARY MATTERS, together with COMMISSION BUSINESS in GENERAL.

MINING AND SHARE OFFICES, NO. 7, GEORGE-YARD, LOMBARD-STREET.

Messrs. H. BOXALL & CO., in announcing their REMOVAL from Crosby Hall Chambers to the ABOVE ADDRESS, beg respectfully to solicit a CONTINUANCE of FAVOURS liberally conferred, and at the same time to call the attention of PARTIES seeking profitable INVESTMENTS to the advantages which MINING PROPERTY offers "when judiciously selected," as compared with any other securities: it may be sufficient to state, they can be bought to pay from 15 to 25 per cent. per annum. This is a favourable time for purchasing dividend-paying stock, while greater caution was never more required than at present in selecting from the many new, "and some worthless," schemes, such as are likely to be eventually remunerative.

Our Mr. B. having become a member of the New Mining Exchange, we are in a position to do full justice to our friends, either in the PURCHASE or DISPOSAL of MINING PROPERTY. We publish a daily List of Prices of what may be termed "Active Stocks," which we shall be happy to forward to any parties requiring the same.—April 10.

MR. T. JORDAN, MINING SHARE & METAL BROKER, NO. 75, OLD BROAD-STREET, CITY.

MESSRS. TREVARTON AND CO., MINING SHARE DEALERS AND BROKERS, 5, ST. JAMES'S-STREET, PALL-MALL.

MR. PEET, MINING AGENT, 48, THREADNEEDLE-STREET, is now prepared to OFFER his SERVICES in the FORMATION of MINING COMPANIES, on the Cost-book System; and also to CONDUCT the LONDON AGENCY of those already established. His offices are advantageously situated. Satisfactory references can be given.—London, April 5, 1851.

MINES.—MOLYNEUX & CO., MINING and GENERAL SHARE AGENTS, 34, THREADNEEDLE-STREET, 6, FINSBURY-PLACE SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES ON SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to CAPITALISTS the safest and most unexceptionable investment.

MOLYNEUX & CO., grateful for past favours, beg to call the attention of their friends to their newly-occupied OFFICES, No. 34, THREADNEEDLE-STREET, where every attention will be paid to the PURCHASE or SALE of SHARES.

* Office hours from Ten to Four o'clock.

REGISTRY FOR THE SALE AND PURCHASE OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 49, LOMBARD-STREET, LONDON.

Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES.

Shares for Disposal.

Devon Great Consols Wheal Mary Ann Wellington Great Wheal Sheba Trevikey West Caradon West Buller Bedfors United Tolgus

N.B.—Statistical information furnished on British and Foreign Mines.—No CHARGE made for the registration of shares unless business be transacted.

TRUST MONEY FOR MORTGAGE.—SEVEN THOUSAND POUNDS are READY for APPROVED MORTGAGE, at the rate of 3 per cent., which may be secured to the borrower for any term not to exceed FOURTEEN YEARS.

Apply to John James Coward, Esq., Lansdowne-crescent, Bath, either personally or by letter, free of postage, who himself being one of the trustees, will only negotiate with principal.—Dated Bath, June 25, 1851.

TO DIRECTORS OF PUBLIC COMPANIES, PROPRIETORS OF MINES, &c.—A CIVIL ENGINEER, who has been actively engaged in this country, as well as abroad, is desirous of INCREASING his CONNECTION, and therefore begs to intimate that he is now ready to undertake, on very moderate terms, the CONSTRUCTION of RAILWAYS, HARBOURS, CANALS, and ROADS, the IMPRO

THE MINING JOURNAL,

SOUTH AUSTRALIAN BANKING COMPANY.

The tenth annual meeting of proprietors was held at the offices, Old Broad-street, on Tuesday, the 24th inst.

Mr. E. DIVETT, M.P., in the chair.

The advertisement by which the meeting had been convened having been read, the minutes of the previous meeting were read and confirmed.

Mr. WHEELER (the manager) then read the following

DIRECTORS' REPORT.

The colony of South Australia continues to rise in population and prosperity, and the business of the bank, consequently, increases in extent and profit. The former system of rigidly scrutinising the assets has been fully maintained at the last balance, and your local manager and directors, in approving the colonial accounts for the year, expressly report that they "have much pleasure in stating that the balance of the declared profits may be safely confirmed by the London directors, and that the whole of the affairs and prospects of the bank are very satisfactory."—The details are as follows:

Amount of undivided profits on 27th May, 1850. £15,280 0 8
Less written off preliminary expenses account. £2600 0 0
Appropriated to reserve fund. 1268 0 0—£3,568 0 0

Total

£11,412 0 8

Net total of profits at Adelaide and London for 1850-51, after every deduction for losses, expenses, &c. 22,231 9 1

Total

£33,643 9 9

From which deduct dividends for July, 1850. £5418 15 0
January, 1851. 5433 15 0
" income tax on dividends paid for proprietors. 315 4 1
" dividends on colonial shares. 43 10 5—11,211 4 6

Balance of undivided profits on 26th May, 1851. £22,432 5 3

The directors recommend that the aforesaid balance of net profits be appropriated as follows:—£5400, to preliminary expenses account, thereby finally closing that account. In their last report the directors stated their anxiety for the early removal of this item from the company's books, and they consider that the extraordinary success of the present year affords a most fitting occasion for clearing it off, so that from future profits no deduction will be necessary for such a purpose:—17032 (10 per cent. on 17,032, 5s. 3d.) to reserve fund, pursuant to charter and deed of settlement. The reserve fund will now be 7772, 1s. 4d.

From the balance (15,292, 5s. 3d.), a dividend of 6*l.* per cent. per annum, clear of income tax, upon the capital, and a bonus of 8*s.* per share; 3 per cent., and 4*s.* per share bonus, payable 15th of January next, as usual.

The annual accounts to 26th ult. have been duly audited, and will be proposed for confirmation. The retiring directors are John Wheeler, Esq., and John Bazley White, Esq., who again seek your confidence. Since the last meeting the directors have to regret the decease of their much valued colleague, Alderman Sir John Pirie, Bart.; they temporarily supplied that vacancy, by appointing William Richards, Esq. (long a proprietor in the company), who now stands formally as a candidate for your election. The late auditors, Felix Ladbrooke, Esq., and Charles Chippindale, Esq., also offer themselves for re-election. In the local direction changes have occurred.—Mr. George Morphett has returned to England, and Mr. R. F. Newland has retired (having received a Government appointment); but those vacancies are filled by the election of John Hector, Esq., and John Morphett, Esq., in whom you may fully confide. Your thanks are justly due to the former local board, and to your valued manager, Edward Stephens, Esq., to whose prudence, activity, and skill, should be attributed much of the success of the bank.

After a reasonable stay in this country, Mr. Stephens hopes to resume his post with renewed health, adequate to the increasing business devolving upon him. The court anticipates much benefit to the company from the present opportunity of consultation on all your colonial affairs and prospects with a gentleman of such extensive local experience as Mr. Stephens.

The directors have pleasure in stating that the most friendly relations continue between your bank and the kindred establishments, each being desirous to conduct business on a prudent basis. The commerce of South Australia steadily increases, and large numbers of settlers (both capitalists and labourers) still flock to its shores. Its exports multiply, and its powers of production appear to be almost unlimited.

The directors consider that the time has now arrived when the capital of 200,000*l.* required by the charter, should be completed, and being wanted for the business of the company, they wish it to be promptly supplied. To effect this object, about 732 shares should be issued, and as (pursuant to the Deed of Settlement) the proprietors have the priority of taking them proportionately to their former stock, the rate will be about one new; for every 10 old shares, but allowing to proprietors of less than 10 shares the right of one new share rather than entirely exclude them from the proposed privilege.

The directors will offer these new share immediately after 1st July, to the proprietors then registered in the company's books, and they will be payable in full upon 16th of August.

The court propose that every proprietor so paying upon 16th August the entire amount of his new shares, shall be entitled to receive thereon, the 3 per cent. dividend and 4*s.* per share bonus, payable 15th January, 1852, equally as for old shares.

In conclusion, the directors have to congratulate you on the present sound and encouraging position of the company, and to renew former assurances of their continued efforts and vigilance for its permanent interests.

The balance-sheet, which was very full, was next submitted.

The CHAIRMAN, in rising to move the adoption of the report, said they had the pleasure of seeing present from South Australia their excellent manager, Mr. Stephens (hear, hear), who had come to England for the benefit of his health. He hoped Mr. Stephens would derive much benefit from this visit to England; and had no doubt that he would be able to afford the proprietors valuable information in reference to the position of the bank's affairs in the colony. It would, he believed, be more satisfactory to the shareholders that such information should come from Mr. Stephens, rather than from himself. He had the pleasure also of seeing present their excellent friend, Mr. Trimmer; and knowing, as they did, the services that gentleman had rendered the bank in the colony, there was no doubt—and he trusted Mr. Trimmer would not think he was presumptuous in thus referring to him—he could furnish many important facts as to the progress of their affairs in South Australia. He (the chairman) trusted that the proprietors would consider the present report a most satisfactory one. (Cheers.) They would see from it that all their future profits would be divisible amongst the proprietors, if such a course should be deemed advisable. It must, he considered, be most gratifying to the proprietors to find that the whole of the preliminary expenses had been got rid of. (Cheers.) He perceived that Mr. George Morphett, another of their local directors, who had just come from the colony, was present. The proprietors knew what his services in behalf of the bank had been. (Cheers.) They were all much indebted to that gentleman and to Mr. Trimmer for their assistance in the colony; and he was sure the proprietors were glad to see them present. (Cheers.) He believed the affairs of the bank were in a thoroughly sound condition, and that with care they had before them, almost to a certainty, a long-continued period of prosperity. (Cheers.)—After a few words from Mr. MILLER, the motion was put and carried unanimously.

Mr. J. R. MILL (a director) moved that the recommendation of the directors, to declare for the ensuing year a dividend of 6 per cent. per annum, with a further amount of 8*s.* per share (both clear of income tax), be adopted, and that they be authorised to pay the same half-yearly, as heretofore.

Mr. TRIMMER seconded the resolution, and said a fairer balance-sheet could not be laid before any body of proprietors than that which the directors submitted to the annual meetings. (Cheers.)

The motion was then put, and carried unanimously.

Mr. STOREY moved that John Wheeler and John Bazley White, Esqrs., be re-elected as directors; and Charles Chippindale and Felix Ladbrooke, Esqrs., as auditors of the company; and that William Richards, Esq., be elected a director in the room of Alderman Sir John Pirie, Bart., deceased.

Mr. BREWSTER seconded the motion, which was carried unanimously.

The CHAIRMAN next moved that the cordial thanks of the proprietors be given to Edward Stephens, Esq., for his able management of the company's colonial affairs, accompanied by the expression of their pleasure at seeing him in England; and that G. Morphett and E. J. S. Trimmer, Esqrs., late local directors, with E. J. Wheeler, Esq., the London manager, be thanked for their valuable exertions in promoting the company's interests.

The resolution was then put, and carried unanimously.

Mr. STEPHENS returned his grateful thanks for the very kind manner in which the vote of thanks had been proposed, and for the very complimentary way in which it had been received by the proprietors. Placed in a position of very great and arduous responsibility, and at so extreme a distance from the London directors and shareholders, and amidst a community necessarily very fluctuating, and more particularly one like that of a new and rapidly-rising colony, he would not be sincere if he did not admit to the meeting that some portion of their kind expression he was bold enough to take to himself, because he was sure that no men could be more sensible than themselves of the extreme arduousness, labour, and caution that were required in his position; but while saying this, he must state that the kindness with which the directors had, both in the report and personally, been pleased to express themselves towards him was greater than he had, as a servant of the establishment, any right to expect. He assured the meeting that he had great pleasure in taking this opportunity of bearing testimony to the extreme zeal and attention of those officers who were not named in the resolution. (Cheers.)

Mr. MORPHETT returned thanks.—Mr. WHEELER returned thanks, and assured them that his best exertions should be devoted to the company's welfare.

Mr. E. W. SMITH moved a vote of thanks to the directors.—The Rev. T. TIMPSON seconded the resolution, which was carried by acclamation.

The CHAIRMAN returned thanks, and the meeting broke up.

15TH

SOUTH AUSTRALIAN COMPANY.

The annual meeting of this company was held at the offices, New Broad-street, on Wednesday, J. RUDDELL TODD, Esq., in the chair.

The MANAGER (Mr. Miller) having read the advertisement convening the meeting, and the minutes of the last having been confirmed, the report was read to the meeting, from which we make the following extracts:

DIRECTORS' REPORT.

After a most minute and careful review of the affairs of the company, your directors have much satisfaction in presenting, on this occasion, a more favourable report than at any previous annual meeting. Inventories of the whole of the company's property, taken at the 21st October, 1850, have been received, and show a very considerable improvement. In remarking on these valuations, Mr. Giles observes:—"One of the directors may be certain, of their property is neither rack-rented nor over-estimated, but a broad margin has been left for probable fluctuations in the value of colonial property." The inventories have been carefully examined by the directors, and compared with those of

previous years, and they consider that the total amount stated, 333,804*l.* 11*s.* 3*d.*, is much under the present actual value of the property.

The summary of gross revenue and expenditure for the year is as follows:

Salaries and wharfage received as per report	£18,485 16 3
Profit on sales of land, town, port, and equity	1,933 4 6
Net proceeds of wool	6,252 5 6
Sales of sheep, including the value of those killed for rations	2,258 11 3
Total	£28,929 17 1

Expenditure, exclusive of that for the mine:—

Salaries and wages in Adelaide	£ 970 6 0
Miscellaneous charges at ditto	442 8 4
Expenditure on account of town, port, and country lands, including reductions to tenants, allowances for improvements, fencing, &c.	1023 3 8
On account of sheep	5534 3 8
Total	£11,015 17 7

IN LONDON.

Interest on debentures, &c.	935 3 4
Total charges, including income tax	2110 12 7

LITERARY NOTICES.

Hand-Book of Natural Philosophy and Astronomy. By DIONYSIUS LARDNER, D.C.L., formerly Professor of Natural Philosophy and Astronomy in University College. London: Taylor, Walton, and Maberly, Upper Gower-street, and Ivy-lane, Paternoster-row, 1851.

The last publication noticed by us in the *Mining Journal* of the talented author of the volume now before us was *Railway Economy*, on 23rd March, 1850, and to which we devoted

considerable space, as not only being the most complete work on the subject in an economic and descriptive point of view, but which laid down principles, and elucidated modes

of calculation of standards of value connected with passenger and goods' traffic, cost of power, wear and tear, and every item connected with railways, which placed the subject on a perfectly new, and truly mathematical basis. In the volume now before us the author has fully supported that lucid and explanatory character of fiction for which his works in general have ever been remarkable. It is decidedly an elementary work, intended as well for the instruction of youth as the satisfaction of those who desire to obtain a knowledge of the elements of physics without pursuing them through their mathematical consequences and details. The methods of demonstration and illustration are such as will be easily appreciable by the most un-informed minds. The author tells us that the object of the work has been to supply that information relating to physical and mechanical science which is required by the medical and law student, the engineer and artisan, by those who are preparing for the university, and by them who, having entered on the active pursuits of business, are still desirous to sustain and improve their knowledge of the general truths of physics, and of those laws by which the order and stability of the material world are maintained. The present volume, although perfect in itself, consists of a first course, confined to mechanics, hydrostatics, hydraulics, pneumatics, sound, and optics, divided into nine books, subdivided into 75 chapters, extending over nearly 850 pages, and illustrated by upwards of 400 diagrams. The subsequent volume will form a second course, devoted to heat, electricity, magnetism, and astronomy. The mechanical arrangements, as to type, paper, and binding, are unexceptionable, and we have no doubt it will become a standard work in every well-supplied library.

The Mining Manual and Almanack for 1851, being a yearly Compendium of information on general science, with tabular and other statistical details relating to the Mining Interests. Compiled and arranged by HENRY ENGLISH, Mining Engineer. London: Simpkin and Co., and *Mining Journal* office.

The third number of this useful and interesting work has just been published, and as the volume for the year in which the World's Fair is being held, we are happy to see that so far from degenerating from its predecessors, its contents place it far in advance, and will convince its readers that much exertion and perseverance have been exercised in collating the multifarious information which it contains on the several branches of mining, metalliferous, and other scientific art. There is a completely new series of original articles on important and interesting subjects, among which are obituary memoirs of Brunel, Dr. Potts, and Sturgeon. In this volume, also, a new feature is put forward—that of rendering an account of all mines, their locality, produce, names of officers, calls, returns, and dividends; but it appears so lukewarm has been the interest or desire manifested by agents and those immediately concerned, that the returns are but meagre. This we regret, as publicity in mining affairs is the surest road to confidence, and we should have rejoiced to have seen this department somewhat more complete. The editor has, however, done his best, and we trust another year will see this end desirably fulfilled.

The Architectural Quarterly Review, a literary periodical, devoted to works pertaining to the Art and Science of Architecture. London: G. Bell, Fleet-street.

The first number of a new three-monthly periodical, devoted to architecture and building, and every branch of industrial art connected therewith, ornamental and necessary, has just made its appearance. The projectors of this publication consider that, accurate generally as may be the opinions expressed in the short notices which appear in some established journals, there has been no periodical having space for reviews adequate to the wants of that numerous class comprising artists, lovers of art, men of science, students, and those practically engaged in building operations, who are interested in architecture.

It has, therefore, been deemed that the existence of a medium for conveying accurate information of the nature of all contributions to the knowledge and development of architecture, might aid in diffusing a more accurate conception of that art and its professors amongst the public, and give information to the architect of the nature of many works, which amidst the urgent demands of the active business of life might otherwise escape them.

The contents of the present volume promise well for future excellence; an introductory article takes a full and artistic review of the present state of the art, the public taste, and the value of the public press as an educational agent, with the nature and extent of existing means of disseminating information. There is a good article on "The Great Exhibition, and its Influence upon Architecture," and some impartial and interesting reviews on "Ruskin and the Stones of Venice," "The Palaces of Nineveh and Persepolis Restored," by Fergusson; and "Nineveh and Persepolis," by Vaux; and "Cleve-Real on the Law of Colour." The articles are illustrated where necessary for description, without making a picture book, and the work bids fair to take its stand among the established quarterly publications.

The Ironmasters' Friend.

A New Song, written by Mr. LLEWELLYN PRICHARD, author of "Twm Shon Catti," for the Eisteddfod of the Cardiff Atheneum, held on the 10th June, 1851.

It is one of the proud records of modern history that the iron trade of Great Britain

owes its spring, rise, and ultimate transcendent success, to the machinations of a national

enemy. When the insane Emperor Paul, of Russia, to please Bonaparte, and at the same

time indulge his own hostile feelings towards England, prohibited Sweden from continuing

to trade with us in iron, by throwing us upon our own resources, he doubtless proved

himself—the British Ironmasters' best friend.]

Drink! drink thy monstrous memory! 1st Welsh ironmasters all.

Drink! drink thy monstrous memory—the Russian Emp'r Paul!

True, he was Old England's foe, friend to the slaying Gaul,

And friend (a lovesome friend!) to ye, Welsh ironmasters all.

Drink! drink his, &c.

Tis true, he hated England's Isle with all his Hannish heart,

And 'twas his whim to love the French, and worship Bonaparte;

But foolish fool prove often friends, and foolish friends would

Will do the deeds of dire foes—so drink the autocrat!

Inflamed with wrath and brandy once, his odious front he rear'd,

While read his minister the news, and Nelson's deeds appear'd.

"The devil take that Isle," quoth he, "world Heaven grant my boon,

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Original Correspondence.

ON THE FORMATION OF METALLIFEROUS VEINS.

Sir.—An advocate of your correspondent, Mr. Ennor, and of his theory, dating from Liverpool, complains of myself and "Argus" writing under a feigned signature, whilst he himself adopts that of "Cornishman." So much for consistency—the laudatory compliments so liberally bestowed on his friend have nothing to do with the questions at issue. He remarks upon my quoting from certain authors; but is it not better to make quotations from able and acknowledged authorities than to put before the public, like Mr. Ennor, a series of undefinable theories and assertions, in which he is borne out by no one practical fact? Amongst my friends—the "legion of practicals"—there are some of the most talented and experienced miners in the world. The "Cornishman" takes upon himself to tell us that his friend, as a practical and experienced miner, is not to be excelled. There is an old adage applicable in this instance—"Save us from our friends," &c. He touches upon delicate ground. May I ask where, when, and how Mr. Ennor obtained his great and extensive practical knowledge, and where he has been so remarkably successful in his exposition of the nature and qualities of mineral veins, and their dependence on the adjacent rocks? Should "Cornishman" find it difficult to answer these queries, I might assist him somewhat. This seems to be all the notice which his letter deserves, except I should say that I have put forth various facts in contravention of Mr. Ennor's views of "Nature's Laws" as he calls them, as to which he has either begged the questions, or omitted to notice them altogether, it may not be amiss, therefore, to take a brief review of them. What, then, are Mr. Ennor's imaginings, for they are nothing else, of "Nature's Laws," and how does he support them? He says the crust of the earth is formed and supported by a series of wedges and plugs meeting at various angles, and in all imaginable ways. Fortunately, we have only his vague authority for it; otherwise, it would be incumbent on us as a safeguard to ourselves, and a duty to posterity, to put an immediate stop to mining, lest in our operations we should accidentally remove the key wedge, and the whole system should fall to pieces. Only conceive the crash! Why "the great globe itself—nay, all which we inhabit—would dissolve."

I am rejoiced at finding my friend, Mr. Ennor, however, is not so far cracked as to presume to ascribe the origin of metalliferous veins to convulsive cracks in the crust aforesaid. He is, however, an alchemist to a certain extent, though it is true he does not go the length of the ancient ones, and pretends, by some talismanic art of his own, to transmute the baser into precious metals. No, but "Nature's laws" do it for him; and she, kind soul, according to him, is now proceeding systematically with the work, and is actually in course of transmuting the earths of aluminium, silicon, and calcium, which I have in a previous letter shown to form the earth's crust, and oxygen and hydrogen, the component parts of water, into metals as we now find them; but this in some degree clashes with your correspondent's theory of the growth of metals, which, if he were right, would seem destined, in the order of things, to fill all space. His system of transmutation would not be so disastrous in its consequences, as it would only tend to alter the nature and properties of matter, and not, probably, to increase its bulk materially.

I am most willing to acknowledge that, under the control and guidance of the great benevolent Creator, through whom "we live and move, and have our being," all the operations of Nature bear the stamp of unerring wisdom and beneficence—the perfection of infinite and consummate skill for the comfort and well-being of his creatures; and I am prepared to say to your correspondent, in the language of the poet—

"All Nature is but art unknown to thee,
All chance direction, which thou canst not see;
All discord harmony not understood,
All partial evil universal good."

But when I see parties thrusting themselves before the public, and especially the practical part of the community, with their vague notions and theories, not borne out or sustained by a single palpable fact, and without any evidence but the futile imaginations of the writers, I invariably begin to think that the organ of intellect might be damaged, and desire to confront them, in order to detect a slight twinkling of the eye—a certain indication of an aberration of mind. *Ad proposito*, about alchemists. I remember being in London, a long time ago, when a gentleman was anxious to introduce me to a friend of his residing in P—square. I called on him by appointment, and he produced for my inspection certain metals, upon which he had been experimenting. I recognised a piece of platina, which he declared to be gold, or that he could so convert it; and other metals differing as widely in colour and more in specific gravity, he likewise said was rich in the precious metal. I perceived I was in presence of an alchemist; and, ready forming my conclusions, looked for the twinkling of the eye, but, on leaving, promised to repeat my call. On returning to my friend, he inquired what I thought of his friend, S. "He is mad" was my reply. My friend thought otherwise, and observed, "Then there is great method in his madness." "Nevertheless (I remarked), he is a monomaniac; he is mad upon that particular subject." A second visit confirmed my worst suspicions. I had left with him some specimens of copper pyrites from this locality; and I found he had subjected them to some manipulations, and declared them to be rich in the precious metal. I subsequently learnt he had become an inmate of a private mad-house. If some day or other I should have the good fortune to meet with your correspondents, who have been more particularly referred to in the course of this controversy, as theoretical geologists, I shall be quite disposed, from the manifest absurdities of the several theories they advocate, to look out for the twinkles. Again, in allusion to Mr. Ennor's theory of the growth of ore, it brings to my recollection an anecdote which an excellent old friend of mine used to relate with a deal of quaintness and good humour. He had seen much of life in this and most parts of the known world; but getting staid, and meeting with an old man who had known him from his youth, he was thus accosted—"Well, Capt. N., you have been knocking about a good deal in your time, and I wish you would make up your mind to settle down and stay at home. I have been thinking very much about you, Capt. N.; and I believe it is in my power to make you all right, if ore do grow, as they say it do. I know, Captain N., where to put you upon one of the finest courses of copper ore in the world; for 20 years ago it was as fine a gossan as ever was seen by mortal eyes. We can work it very cheap, Capt. N. You can be the captain; me and my boy can do the underground work; my wife and little Polly can dress the ore, you know, Capt. N. I have two horses and a mule for the whin; the mule is very lame in the fetlock, to be sure (said the old man); but then he can hop about amongst the rest." Now, I question very much if such a team would not be ample power for all the ore to be raised from Mr. Ennor's growing principle. Another of Mr. Ennor's favourite themes is that vast quantities of ore have been transported in the course of ages from one end of a lode to the other; or, in other words, and to use his own, that a rich course of ore which existed at some particular spot has been removed to some more favoured region—the rubbish from the poor part taking the place of the rich, and *vice versa*. It is difficult to assign any very rational course for all this trouble; but it is Mr. Ennor's dictum. He says he thinks it is so; in short, it is one of his "Nature's laws" by which and the aid of the mystic words—"presto, fly Jack!"—he conveys a rich course of ore from one end of a lode to the other; but then there is the trifling obstacle to contend with of transporting the poor or impoverished part of the vein to that spot which the ore was taken; and as by his "Nature's laws" they would inevitably meet in their passage, it is fatal to conclude they would seriously jostle each other. Herein I perceive an unquestionable solution of the cause of earthquakes; and we are indebted for this discovery to Mr. Ennor's erudite conceptions of the cause and effects of metalliferous veins; but as the questions mooted have led to it, the mere glimpse must immortalise the "Practical Miner."

I have not had an opportunity of satisfying myself upon the point, but I feel assured that your correspondent has the organ of imaginativeness most strongly developed. It cannot well be otherwise, since he has set down an imaginary line of granite, without intermission, from the Land's-End to the eastern point of Dartmoor, and he imagines he will be borne out in this statement by every practical miner—a more fallacious opinion was never formed. I must not presume to occupy your valuable space, by going into details as to the different places where granite may be seen at intervals between the points referred to. I may, however, be permitted to notice, that from the granite near the Land's-End, to the Cornish Mount, where a small patch is seen, there is a break of several miles; and thence, again, there is a further break of some miles up to Pendavore, in Camborne. The granite range continues from thence to Carmarthen, and hence eastward, for many miles north and south, including a great extent of country, there is a slate formation, without a vestige of granite. Mr. Ennor may see through a millstone just as well as other people, but how does he divine the presence of the granite range under the primitive clay-slate? He has no precedent to found his argument upon. I grant the truth of one part of it, that if we sink far enough we shall find it, but methinks the depth might be down to the "boiling cauldron." He, at least, can know no better, and it is useless to combat such vague theories. I am not well acquainted with Clegra Point, but I have recently ascertained that what is termed a range of granite there only shows itself a few fathoms in length; and that even does not present the usual appearance of granite, inasmuch as it is very deficient of mica. Capt. Pill's or Mr. Ennor's assertions that the killas there overlie the granite, goes for nothing with me, as it will with every practical man, unless they afford us better data than their simple belief to go by.

I can establish the truth of these remarks, and, therefore, I contend I have triumphantly proved that many a valuable copper mine has been found distant more than two miles from granite. But, says your correspondent, the lodes follow the granite, or they may always be met with in such district. I deny the position, and am prepared to prove that in many granite veins it is not a trace of a metallic vein. As to the lodes laid down in maps, they are like Mr. Ennor's theories, not to be trusted. I admit that between Redruth and Camborne there are numerous lodes running parallel with each other, and others intersecting them, more than half being in granite, all of them productive, and most of them rich in metalliferous ores. They entirely upset his assertion that parallel lodes impoverish their neighbour; experience proves the very reverse. There is only one granite range in this district (not two), and the lodes either make in or to the north of them; neither is it true that between Redruth (which commences at the eastern extremity of Carn Brea) and Camborne the lodes have been unproductive for half a mile at a stretch. I insist upon the fact, that for upwards of three miles continuously there is a section of lineal lodes which have been enormously rich; and it can scarcely be said that there have been 30 ft. of ground on the course of the lodes which have not been productive at some point or other. The assertion of this veritable geologist, that as much money has been sunk in this district in search of ores in a mile of ground as in any given one in the county, is utterly without foundation, and your correspondent should not venture on such broad, I was going to say bare-faced, assertions, which it is clear, he knows nothing about. The truth is, that the money sunk in the mining speculations of Camborne, Illogan, Redruth, and Gwennap, is comparatively very trivial.

It is very true that the heaves and shifts of the lodes by cross-courses and slides, in this, like every other mining district, are puzzling and perplexing sometimes even to the "practicals." The geological theorist will usually have it that the cross-courses, which, in many respects, are similar to lodes, have always shifted the latter. Such is not the case: the silver lode in Dolcoath, which runs in a line with the copper lode, and has itself, from time to time, besides the silver, produced a quantity of copper ore. The copper lodes are invariably shifted by the cross-course, whereas Freeman's cross-course is shifted, or hove, some feet by the silver lode. How does Mr. Ennor explain this strange freak of his "Nature's laws?" and how does he venture to say I have not turned some of the lodes to account? We practicals come in sometimes for a part of the loaves and fishes.

I have never said that my rule of lineal lodes holds good continuously. I should leave those who, like Mr. Ennor, rely on the re-producing qualities of the strata, to go between Wheal Busy and the Indian Queen to look for mines, unless any one can show me a good gossan, and we practicals would be at it in a moment.

Mr. Ennor says he believes (believes, indeed!) that in the unproductive rocks, both

east and west, something is wanting to prevent (to produce he means) chemical action; and hence the strata does not become mineralised; but (modest man) he does not point out a means. I will suggest one. Let him get the ground often well saturated with a solution of the sulphate of copper. There, now he practically knows something about it.

Wheal Jubilee was discovered on the Jubilee day, 1809, I think, and was very rich in antimonial copper ore within 6 ft. of the surface. A considerable amount was realised by the sale of the copper, but the antimony unfortunately was sacrificed. The engine which your correspondent tells us he was able to purchase in 1822 was from a second company; it is not, however, necessary in order to refute his theory for me to show that the mine was really a profitable one, but simply to prove that lodes at long distances from granite ranges had been productive to a considerable extent. Your correspondent finds fault with our practicals, because in their day they failed to discover all the copper. I suppose he intends to infer that the copper has grown since their time, and he adds they had abundance of tin in the backs to guide them. He must permit me as a "practical" to tell him that although in a majority of cases it might be so, the gossan lodes do not produce tin, there was none in the backs of Crinnis, East Crinnis, or Pembroke lodes, and I believe the backs of Fowey Consols and Lancescot lodes were without it.

Your correspondent asks exultingly what is now to become of my lineal line of lodes, I answer they may be found in Gwennap in several places. I may instance as lineal lodes Wheal Comfort, Brewer, Treseavan, Trevisey and Barrier, Wheal Buller, West Buller, South Bassett, South Frances, Carn Brea, Tincroft, Cook's Kitchen, Dolcoath, Stray Park, Camborne Vean and Wheal Francis, East Pool, East Wheal Crofty, Wheal Crofty, North Roskear, Creavener, Outfield, Wheal Abraham, Wheal Sarah, and Binner Downs. I might mention many other such sections of lodes, but I conclude those I have enumerated must silence his quibbles.

In conclusion, "Verax" proposed in a recent letter that I should be exhibited in the Crystal Palace in a glass case, as a befitting specimen of a model captain of 1851. He might, I think, just as well occupy a niche hard by as a second Koh-i-noor, or mountain of light, with his friend Ennor as his satellite or little moon; but lest my suspicions, obscurely hinted at in a former part of my letter, should prove well founded, I would advise, as a grave precaution against accidents to the public, that they should like the gem itself, be well secured in iron cages, or entombed, as I do, serious doubts of their sanity, I should not consider myself safe in their proximity, with only the brittle protection of a glass case.

Camborne, June 16. —————— PRACTICAL MINER.

THE NATURAL PHENOMENA OF MINERAL VEINS.

Sir.—The tumult having apparently dwindled to a calm, it is, perhaps, due to myself I should remind your readers that I was drawn into the correspondence when quietly pursuing my own inquiries; if I have attacked the magnetic or crystalline doctrine, it has been in self-defence, and whilst no one can honour practical research more than I do, it being obviously the only basis for correct inquiry, I think that in this case it has been instrumental in causing the exception to be mistaken for the rule. On reference to Mr. Ennor's letter, which appeared in your two last Journals, it will be observed that attention is pointedly drawn to certain decompositions that are now taking place in rocks, the water from which observes would produce copper in a few days, if iron was brought in contact, and to this operation he attributes the formation of mineral veins; losing sight altogether of the fact that this is nothing more than a consequence of a first cause, or chemical action induced by the operation of air and water on matter previously formed, to the formation of which matter, and not to its decomposition, his attention should be directed, the more especially as most of our mineral veins consist of matter of the original, and not of the formation of decomposition: or, as I have already observed, the metal is in combination with a base and not with an acid, a reference to which fact is cautiously avoided by all the supporters of the crystalline theory.

In my letter of the 16th inst. I also referred to the fact that the metals generally exist as a conglomerate; and recently my attention has been drawn to some specimens of *refuse* or *ore* from Cornwall, but which appear rich in metal, in which the metal is not only, so to speak, in chemical combination with the component parts of the granite, but the mass presents all the appearances of a clinker, evidently the result of fusion, the cooling having apparently taken place under conditions that did not admit of crystallisation; of this material I understand there are thousands of tons from which it is intended to extract the metal. To this kind of production the practicals can be no strangers, it appears, therefore, rather strange to me, that they should avoid all reference to it in their crystalline papers; but whether the captain who rejected this material as worthless is one of their school, I cannot say. Be that as it may, or whether the ore will pay for re-working or not, it appears to me obvious that unless these several facts can be reconciled to the magnetic doctrine, the inculcation of its principles cannot fail in misdirecting those engaged in search of mineral veins; although the general rules laid down by "Cornubia" in his letter of the 18th, must have a contrary effect, and those rules I shall hereafter apply to the principles I have ventured on submitting to public consideration in my papers on "Atmospheric Influences."

Canterbury-place, Lambeth-road, June 24. —————— FRANKLIN COXWORTHY,

Author of *Electrical Condition*.

ON THE FORMATION OF LODES.

Sir.—Mr. Ennor is of opinion that lodes are at present in a state of formation, and that parallel ones feed each other. Will he kindly state, if he has ever met with an instance where a lode has been abandoned, and after a number of years again resumed, that it has improved either in appearance or quality in the interim? This, or any other practical fact of a like nature, in connection with his theory, will be read with interest by— A LOOKER ON.

June 26.

INVESTIGATION OF MINING REPORTS.

Sir.—Your Journal being an open channel for the legitimate interests of mining pursuits, and which are protected in its columns from the weak arguments of scurrilous personalities and abusive remarks, as an old investor and legitimate holder of mines, I beg to concur most cordially with the remarks of Mr. Evan Hopkins on last Saturday, as to the necessity of having a committee of qualified independent gentlemen to investigate mining reports, rectify share price, &c. Without requiring philanthropic services, I recommend that a general subscription of some moderate amount be collected from the various mining shareholders, to appoint a suitable office, and a proper clerk at a fixed salary, to act on the committee's orders only, as well as to cover the necessary incidental expenses. The great invested capital of the county of Cornwall alone demands, and can easily afford, this protection to its interests—public confidence, &c. H. ASSHE ASSHECOURT.

TINCROFT MINING COMPANY.

Sir.—Being one of those who regard the real prospects and state of a mine, rather than that fluctuating barometer, the price of shares; more as a shareholder holding on receipt of dividends, than gambling or rigging in the market, which only serves to turn off those from time to time "bear" and "bull" the market, and who frequently get bit themselves; and having often witnessed a vast depreciation in the price of certain shares, when from the discoveries in the mine the value has actually very considerably enhanced, and, *vice versa*, when prospects have been gloomy in the mine the market value has shown a brilliant aspect, considerably above the real value of the property, I was induced to notice the remarks made in your Journal relative to this really valuable and richly prospective concern; and as facts at all times are better than imaginary fallacies, I venture to send you the following brief statement of "facts and figures" to use, if you think them likely to prove interesting to your readers. I have known Tincroft well for upwards of 34 years, I may say during its change of proprietary four times in that period, and have been present at the declaration of a vast amount of dividends from profits from that mine. On the 1st Aug. last the present purser had the honour of presiding over the ticketing at Camborne, when Tincroft sold 620 tons, at 8d. per ton average, 1860. 12s. (the average price during 1849 having been 3d. 10s. per ton). The next sale, on—

5th September, 651 tons, realised 4d. 10s. per ton, say	£2929 10 0
3d October, 579 tons, 3d. 18s. per ton	2257 18 0
(The average on the quarter being 3d. 11s. 6d. per ton.)	
31st October, 626 tons, 3d. 19s. 3d. per ton	2489 2 0
5th December, 722 tons, 3d. 11s. 6d. per ton	2581 18 6
(The average for the quarter being 3d. 10s. 6d. per ton.)	
2d January, 1851, 707 tons, 3d. 14s. 9d. per ton	2623 14 6
6th February, 715 tons, 3d. 3s. 3d. per ton	2263 17 6
6th March, 613 tons, 2d. 19s. 6d. per ton	1824 3 6
(The average for the quarter being 3d. 6s. 3d. per ton.)	
3d April, 583 tons, 3d. 9s. per ton	2011 8 6
1st May, 591 tons, 3d. 17s. 6d.	2290 15 6
5th June, 651 tons, 3d. 14s.	2218 18 6

The whole of these sales average only 3d. 12s. 6d. per ton. The present sampling is 664 tons of superior ore—in fact, I have seen the assays of the various parcels, and made them up at the present standard, and the total amount is 3340t., being 65t. average per ton, for sale on Thursday, the 3d July. If this does not speak volumes, and enable parties to judge of the real state of the concern, I know not what better authority they can have. Certainly not by watching the cunning manoeuvres practised in the share market.

June 26. —————— ARGUS (of Truro).

TINCROFT MINING COMPANY.

Sir.—Your facetious correspondent of last week was evidently desirous of manifesting his cleverness in finding fault with the committee of investigation, although, with singular inconsistency, he sets out with a little self-praise on his own retiring modesty. Having hit upon the figure of "40 days in the wilderness," which pleased his lively fancy, he was determined to continue it, irrespective of tediousness and intricacy; he was evidently loth to part with it, and therefore continued it too long, and pursued it too far. It occurred to me that your correspondent's time and ingenuity would have been more usefully and profitably employed in offering suggestions calculated to assist the committee in the prosecution of their duties, rather than by futile attempts at wit. Their efforts have doubtless been attended with considerable difficulty, and it is generally believed that the result of their labours will bear a due proportion to the time and trouble expended therein.

The position of a committee so constituted as the one under notice is pecu-

liarily painful; they have the most inexplicable difficulties to contend with, and the most opposite interests and dispositions to conserve, and it is rather too bad that before their duties are finished, and the results thereof known, they should be attacked by ridicule and derision. The most charitable construction to place on such conduct is to consider that your correspondent was misled by a desire of flourishing on the several properties of the absurd allusion to the wilderness, which he introduced into his letter, without taking the trouble to examine whether there are any qualities in the subject to which these properties can with perspicuity belong. It is to be hoped, however, that he, and all earnestly interested in the Tincroft Mines, will attend the meeting whenever the committee's labours will allow of calling the shareholders together, and give that support and assistance to the report which may be proper and requisite.—ALPHA: London, June 20.

THE MINING EXCHANGE AND W. B. CALL, ESQ.

Sir.—Having seen frequently in the Journal (more particularly that of last week) letters signed by W. B. Call, Whiteford House, depreciating mines and mining in the neighbourhood of his father's country seat, I beg to call the attention of the public to the fact that the father of W. B. Call, Esq., is the surface owner of the soil in the parish of Stoke Climsland, but, unfortunately for him, the Duchy are the owners of the minerals, and as such owners can alone grant sets of their property. An antipathy to mines and mining has therefore naturally sprung up in the bosom of this young "expectant," who has no claim whatever to the dues on minerals, and who only comes into the surface of the property after his father's decease. I have often heard of ore being covered up by the servants of Sir W. Call, and have also heard they are bound to secrecy in that respect: but whether this be true or not, I think Mr. Call, before he proclaims himself a "philanthropic man," or

and I cannot account for the agent's being silent as to progress making for so long a period. I recommend them all to persevere, or suspend, rather than proceed as now doing.—*ARGUS (of Truro): June 26.*

WHEAL HAMLYN.

SIR.—Your readiness to expose the worthless schemes of men whose continual course of proceeding is to victimise the unwary adventurer, has secured for your Journal a reputation highly creditable to its management. You have likewise, Sir, ever exhibited a willingness to afford opportunity for the fullest explanations, whenever an individual connected with an undertaking which had been alluded to in your correspondence thought proper to reply. Permit me, therefore, to avail myself of this privilege, and to wipe the dust from the eyes of your correspondent in last week's Journal (R. Silvester). This man, whom I know not, wrote to me, making many inquiries, which I answered at considerable length. I send you his letter, that you may have evidence of the craftiness of good Mr. Silvester, of Belitha-Terrace, Islington. With this introduction, to show you that to a man who had no claim upon me, as secretary to a company in which he was not interested, even though he were going to become an adventurer by purchasing another's interest, I gave a full, honest, and truthful reply to his inquiries, I proceed to give you some knowledge of the undertaking under notice; and although I am only an unworthy "functionary" connected with it, I will not allow my character to be impugned without good reasons existing for my condemnation. A company was formed for working Wheal Hamlyn on the 22d July, 1850, and a license granted to respectable parties in the neighbourhood. This is the date given as "years ago" by your correspondent. The mine was divided into 1024 shares, and transfers have been regularly executed from time to time, calls made for paying the costs as incurred, and a full account kept of all money transactions connected with the adventure. There are no liabilities existing, and 32 shareholders are now registered as adventurers. A short time back a new license was granted by the lord, and on the 28th of last month a meeting of adventurers was held, at which 942 (1024th) shares were represented. The mine was then divided into 2048 shares, doubling each holder's interest; and a call made upon this latter number, to meet the expenses of the lease, and the immediate costs of the mine for the next two months. The report which I send you will confirm my statements, and new certificates have been issued to each adventurer, in accordance with his present position. It is true a few prospectuses, or particulars of the mine, have been printed, in which mistake, and not a wilful misrepresentation, has occurred. The dues of the mine are 1-16th and not 1-20th, as therein stated. No false assertion is there made to shock the honour of your correspondent, or any other person. No price of the shares is quoted to mislead the public, and I do not think the answer I wrote to him are much at variance with the facts as they are. No place is there mentioned where shares are to be obtained—the holders being at liberty to retain or dispose of them through any channel, suiting their position or inclination. And now, Sir, I ask him how he dares to insinuate dishonour to either myself, as secretary, or the adventurers, who may be selling shares, or offering them either to himself or his friends. Recent discoveries have enhanced the value of shares in this mine, and however extravagant a price may be asked or obtained for them, there is no discredit or dishonour attaching to the mine or its management; and I challenge all the mining men of Devon or Cornwall to come and examine into the position of the company's affairs, and to cry shame on a man who vilifies the name of another in an anonymous public letter, who had previously volunteered to give to him every information connected with the mine. A private pique must surely exist against some adventurer on the part of "R. S.," but I warn him against a repetition of his unworthy conduct. He has shown too much zeal in his declamation this time; for although mining adventure may have suffered by the much-to-be-deplored rascality of men connected with it, I have yet to question the existence of a reason why your correspondent should rank me amongst these.

HENRY PEET.

Threadneedle street, June 26.

[We have received copies of Mr. Silvester's letters to Mr. Peet, in which he puts six ordinary questions respecting the management and liability of the adventurers, which we have no doubt Mr. Peet satisfactorily replied to. The general tenor of his language, his haste to assume an unwillingness to reply, and his threats to put the questions through our Journal, show a disposition to seek some ground of complaint, rather than purchase shares. He is, however, well answered above.]

KENMARE AND WEST OF IRELAND COPPER AND SILVER-LEAD MINING COMPANY.

At the first extraordinary general meeting of shareholders, held at the offices of the company, Moorgate-street, on Thursday—R. J. R. CAMPBELL, Esq., in the chair.—Mr. MANBY (the secretary) read the notice convening the meeting from the *Mining Journal*, and Capt. Hoskin's report of the state he found the mines in on his recent inspection of them.

The CHAIRMAN stated that Capt. Hoskin's report was fully confirmed by that received from the managing superintendent on the spot, Capt. Wm. Thomas, and also Capt. Paul. There were 399 shares still unappropriated, and a regular conveyance of the property had been duly made to trustees on behalf of the company. The directors and secretary had but recently returned from the mines, and were satisfied of the property proving ultimately highly remunerative.—The following report, from Capt. Thomas, was then read:—

The engine-shaft is sunk perpendicularly from surface 36 fms.; the underlie of the lode is south, and the engine-shaft having been sunk north of the lode instead of south, shows that it was placed in a wrong position, as the deeper it is sunk the further will it be from the lode. Croker's shaft, which is about 70 fms. west of the engine-shaft, has also been sunk 26 fms. from surface, by means of horizontal rods attached to the engine; this shaft is perpendicular 27 fathoms, and the remaining 9 fathoms sink on the course of the lode. During the former working of this mine, I examined the lode in Croker's shaft on the 30th Sept., 1846; it was then sunk about 3 fms. below the 36 fm. level. I am not aware that it has been sunk deeper since that period, and the lode was 3 feet wide, containing good solid lumps of rich copper ore. At present, the shaft below the 36 fm. level, owing to a defect in the shaft work, is full of water. The 17 fm. level has been driven 36 fms. west from Croker's shaft; it varies from 1 to 3 ft. in width, and contains gossan, flocuan, and, in places, a small quantity of copper ore; the present end is disordered in consequence of the strata having changed from black shaly slate to soft whitish decomposing clay-slate, which I consider much more likely to produce ore than the ground through which the lode has passed. The 27 fm. level is driven west from Croker's shaft about 8 fms., and the lode in the end is small and unproductive. This end, however, should be driven west to reach the more favourable strata, and a winze sunk from the 17 fm. level for the purpose of ventilation and proving the ground as marked in the sketch. The 36 fm. level is driven west about 6 fms.; the lode in the back of the end is small, and in the bottom it assumes a more decided character, and contains good copper ore. The bottom of the 36 fm. level has been stopped west of the shaft between 2 and 3 fms. in length, and about 2 fms. deep; it is now full of water, but on my former inspection I found the lode intermixed with good copper ore, and a complete change in the strata from black killas, or carboniferous slate, to light coloured clay-slate, in which, as it dips westward, and also at a greater depth, the lode will no doubt become much more permanent and productive. Trials have been made in different places in the bottom of the 36 fm. level, between the engine-shaft and Croker's shaft; the lode is well-defined, and contains copper ore of rich quality; the underlie of the lode, as before stated, is from 1 to 2 in 6 ft. south. There is, however, between Croker's shaft and the engine-shaft a singular bend, or plank, on the foot (north) wall of the lode, which is several fms. in length underlies north, while the south wall continues its regular underlie south. I am inclined to think that the 46 fathoms level, when driven under this place, will lead to important discoveries of copper ore. It will also drain the water from a winze sunk 10 fms. under the 36 fathom level, near the engine-shaft, which is now full of water, but in the bottom of which it is reported there is a valuable deposit of copper ore. If this plan of working be judiciously and systematically carried out, I believe that the result will be a valuable and permanent mine.

Forge Lode.—This lode is about 100 fathoms south of the engine, or north lode, and parallel to it; it is found in the mountain limestone, and considerable quantities of copper ore have been raised at various shallow depths from surface, of an exceedingly good quality. Continuous ranges of old workings are still visible for many hundred fathoms at surface; the depth of these old workings is unknown, but judging from the vast extent of open excavations still visible, it is more than probable that the former workers were amply repaid for their trouble and expectations, and that with an improved system of operations, valuable discoveries of mineral deposits will yet be found in this part of the mine. For further particulars as to the most beneficial mode of explorations to be carried out, I beg to refer to sketch.

Lead Lode.—About 22 fms. south of Forge lode is a lead lode, which being large and continuous a considerable distance, and rich specimens of galena having been produced therefrom, I consider it most advisable to sink some 10 or 15 fms. on the course of the lode, which will show its size and quality. Just opposite the deepest working on the Forge lode, and if it proves as productive as I expect it will, a cross-cut could soon be driven to it from the bottom level of the workings on the Forge lode.

South Lode, Manby's Shaft.—About 200 fms. south of the lead lode a shaft has been sunk a few feet on what is known as the south lode; it is several feet wide, as seen near surface, and contains irony gossan, iron pyrites, sulphate of barytes, and spots of yellow copper and lead ore. I recommend, as the most judicious mode of ascertaining the value of this lode, to sink Manby's shaft, as shown in sketch, on the course of the lode some 10 or 15 fms., and drive east and west agreeably to circumstances, and I have reason to believe that it will lead to the discovery of important and valuable deposits of metallic mineral. The sulphate of barytes is indicative of lead ore, for which a ready market can be found. There is also considerable demand for iron pyrites, both of which articles are marketable, and will prove valuable auxiliaries in prosecuting explorations in search of other minerals. In conclusion, I beg to sum up this report as follows:—1. There are four parallel lodes; the three south lodes are in mountain limestone, and the north lode is bordering on, or rather in the junction of limestone, carboniferous shale, and passing into light coloured decomposing clay-slate. 2. The north lode assumes a more decided character, the deeper it goes, for producing considerable quantities of copper ore. 3. The Forge lode, in my opinion, irrespective of all the other lodes, is the most valuable specimen, and likely to produce large returns on a small outlay of capital—4. The lead lode is highly deserving the trials recommended.—5. The south lode presents every appearance of producing large returns of ore.—Lastly, it is my opinion, if this mineral property is fairly, economically, and properly worked, and the operations concentrated on given points, instead of scratching the surface of the whole property, that it will prove highly remunerative to the shareholders, as well as beneficial to the labouring classes of the district.

Several shareholders considered that Capt. Thomas's report gave perfect satisfaction, and the CHAIRMAN observed, that he (Captain Thomas) was quite ready to receive a per centage on the returns as a recompence for his services, in preference to a fixed salary—his estimate of expenditure was 210/- £s. a month.

Sir EVAN MACKENZIE rose to propose the first resolution, which was seconded by Mr. LACEY, and carried by acclamation:—

That this meeting having heard read the directors' report, and the documents mentioned therein, approve and confirm the same, and consider that the best thanks of the shareholders are due to the directors, for the able and energetic steps taken by them for the advancement of the shareholders' interests.

Mr. TODD stated that he had attentively perused all the reports and other documents, and finding the former corresponded in effect so correctly in the main facts, he could entertain no doubt as to the prosperity of the concern, if judiciously conducted. The north lode had already shown a profit under the old company, and Manby's lode south was of so favourable a character, that in Cornwall it would be held to warrant an outlay of 30,000/- to give it an effectual trial.—The chairman and shareholders generally expressed themselves highly gratified with the prospects of the company, and avinced their determination of giving the mine an adequate trial to prove the value.

It was then proposed by Mr. J. BRANWELL, seconded by Mr. FRITH, and carried unanimously:—

That the thanks of this meeting are due to the chairman for his able and courteous conduct in the chair.

The meeting, the proceedings at which appeared to give general satisfaction, then separated.

MARMATO GOLD MINING COMPANY.

The first annual meeting of shareholders was held at the offices, 18, Austin-friars on Monday, the 23d inst.—JOHN DISTON POWLES, Esq., in the chair.

Mr. L. R. JONES (the secretary) read the notice from the *Mining Journal* convening the meeting, also the account of receipts and disbursements for 1848, 1849, 1850, the result of which, showing the prosperity that has attended the prosecution of this concern may be summed up as follows:—

Balance of receipts over disbursements in 1848 £102 13 7
" " " 1849 10 7
" " " 1850 5843 14 11

Profit £11,181 19 1

Deduct, 1848, loss on dependencies £8388 17 10
" loss by the failure of a mercantile firm in New Granada 2086 19 2 2925 17 0

Net profit £8256 2 1

Dividend paid in January for half year £2700 0 0
" now declared " 2700 0 0 5400 0 0

Leaving balance in hand of £8256 2 1

Stamped at end of 1849, rough ore Tons 8303 0 0—for 1850 Tons 7588 1 0
Re-treated " 8078 16 0 " 12047 16 0

Total Tons 16,381 16 0 Tons 19,635 17 0

Average number of stamps head at work 75 31-60ths 88 17-50ths

1849—Obtained from the mills Lbs. 510 6 18 234 4 4
Tributes 22 11 6 12 2 10
" 6 0 3 2 10 9
Purchase 75 5 1 33 2 4

Total Lbs. 614 11 8 332 7 7

1850—Obtained from the mills Lbs. 562 10 5 342 1 14
Tributes 14 0 12 8 3 4
Purchase 137 10 9 79 7 1

Total Lbs. 714 9 6 429 11 19

The CHAIRMAN stated that such had been the progress of the concern during the brief period of its existence. The outlay of capital had been £750/-, being 22.10s. per 2700th share; the dividend declared this day would, therefore, make a return of 22. per share, and in January the present balance in hand and prospects ensured the payment of another 1/-; in fact, there was every probability of the future divisions of net profit extending to 22.10s. per share per annum. The directors services had hitherto been gratuitous, but they thought themselves entitled to some small remuneration, commencing from 1st January last, if some gentleman would propose it to the meeting.

Mr. FISHER then moved that each director should receive 50/- per annum from 1st January last, which was carried unanimously, as were the motions respectively—that John Diston Powles, Esq., be re-elected a member of the board, and that Edward Hurry, Esq., and William Champion Jones, Esq., be appointed auditors.

A SHAREHOLDER inquired what was considered to be about the market value of their shares, and received for answer that the proprietary consisted of not more than 22 or 23 individuals, therefore transfers had not been very frequent—the last was understood to have been made at 10/- per share.

The meeting then separated, to the satisfaction of all.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

LIANWRST.—A lead mine has been at work here for some years, which has returned a profit of about 3000/- a year; the principal vein is from 3 to 4 feet wide, underlying about 20° south-west. The south part of the sett extends over 10 acres, 400 yards of the vein at surface yet untouched. The stratum is killas, and a recent discovery of numerous valuable and rich strings and branches of lead has been made. A level has been driven 49 yds. in the western ground, and a further 40 yds. will cut the vein 80 yds. from surface, when it may be worked most favourably, and on a large scale. There is abundance of water power, and the freight to and from the shipping place reasonable.

WHEAL ANNA CONSOLS.—Although this mine was introduced but very recently, we understand that the shares have been readily taken, of which a large portion is held in the county, and that this concern will be speedily and vigorously prosecuted under the direction of Capt. Puckey, of Fowey Consols, Par Consols, &c. As an earnest of this intention, some parts of the engine have been delivered in the mine during the present week, and the other arrangements for working we hear are progressing with equal expedition.

DARTMOOR.—Old Brimpton is a fair speculation under the present management: I see no reason why she should not prove an excellent mine. Golden Dagger is a capital little mine, but those who deserve the praise for making it so I am afraid will have to contend with the "snake in the grass." East Birch Tor is a fair speculation, under an efficient agent. Devon Great Tincroft is in its infancy, but has several small champion lodes producing fair stamp work—this mine also requires good management.

The mines on Lake Superior have for some time past attracted much attention on the part of the capitalists of New York and the other cities of the United States, whose proverbially keen eyes for any new source of profit quickly showed them the importance of the mineral wealth of those regions. The consequence was a kind of mania for copper mining in 1845 and 1846, and the advices last to hand report that the inquiry for good locations is now almost as great as it was at that period, whilst it is noticed that the inquirers are of an improved class, being generally men of capital. New mines are being gradually started, and, in most instances, New York, Pittsburgh, and Philadelphia, furnish the capital required. The old mines are stated to have never looked better. The magnificent accounts which have been published relative to the prospects of the famous Cliff Mine seem no way exaggerated. According to the last accounts the mine looks better than ever. In consequence of the discovery of an immense mass of ore, the stock had improved in a short time from \$95 to \$120 per share. About 500 tons of ore are stated to be raised; the stamps will soon be in full operation; and there was a very large quantity of copper ready to be taken out. It is estimated that this mine alone, which is the property of a Pittsburgh company, will ship about 1200 tons of mineral to market this year, 65 per cent. of which is pure copper. In the Ontonagon district the Minnesota Mine stands the most prominent. This company kept about 150 men in employment during the winter, have extended their first level about 1000 feet, and have sunk three shafts to the depth of 160 feet, and another to the extent of 100 feet, and opened the second level about 500 feet. They have also opened a new vein 30 feet north of the original works by a cross-cut at first and second level, which is proving exceedingly rich. They are now carrying on stoping, which produces mass copper and rich stamp work in all parts of the mines. Some of these masses, now exposed, are estimated at 40 tons each. This company will probably ship 500 tons of ore this season. The mines known as the North American, North-Western, Peninsula, Norwich, Forest, Ohio, and Adventure, are also very favourable. The Aztec Mine has not sufficient force at work, but it is noticed that this location is performed with ancient diggings, to the extent of upwards of a mile, and wherever the earth has been removed, rich masses of copper have been found, apparently in large quantities. In many cases, the mineral in these districts yields 70 per cent. of pure copper; and masses of pure copper are stated to have been taken out, weighing from 4 to 5 tons each. Mining on the Lake is now carried on with much more system than formerly. The work is now nearly all done by contract; and this plan is found much more economical than the engagement of men who worked by the month. The greatest drawback to carrying on mining in the Ontonagon county, where the soil is extremely rich, is the great distance the companies have to bring their supplies, the roads being very bad in the summer, though good in winter. A proof of the enterprise of the miners is found in the circumstance that application has been made for a charter for the construction of a railroad from the mouth of the Ontonagon river to the Adventure Mine, a distance of about 15 miles. Under the influence of such considerations, the population of these regions is rapidly increasing.

The contract for the Boyne viaduct, on the Dublin and Belfast Junction Railway, has been given to Mr. Evans, who executed the works of the Conway Tular Bridge on the Chester and Holyhead line. The sum stipulated for the viaduct over the Boyne is £8,000/-

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—The lode in Field's engine-shaft, sinking under the 80 fm. level, is just as reported on last week. The lode in the 80 fm. level east is about 8 ft. wide, and at present we are driving on the north part, which is 5 ft. wide; this north part is worth for copper ore 60/- per fathom; the remaining 3 ft. on the south is ore, but this part will not be broken this week. The lode in No. 3 winze, sinking under the 70 fm. level east, is 5 ft. wide, nearly all solid copper ore, worth 90/- per fm. In sinking Wyld's shaft under the 70 a branch of copper ore has fallen in from the north; which we expected, as it went from us in the 70; this branch is from 6 to 8 in. wide, pretty good, and is crossing the shaft towards the south part of the lode; the south part of the lode in the 70 appears to be running behind this shaft, and at present is from 4 to 5 ft. wide, worth from 70/- to 80/- per fm. Wyld's shaft has been sinking between the two parts of the lode, but we intend now sinking it well less underlay, so as to get nearer the south part of the lode—this ore ground is looking well.

BEDFORD UNITED.—There is no alteration in the 115, east of the engine-shaft; the lode in that level, east of Andrew's winze, is 4 feet wide, producing good stones of ore, and more kindly than it has been; west, not taken down. The lode in the 103 east is 4 ft. wide, and is at present worth about 5 tons of ore per fm. We are sinking by the side of the lode in the winze at the 90. The lode in Hooper's winze, at the 80, is 20 in. wide, spar and munde, with good stones of ore. The lode in the 47 east is 18 ft. wide, capel, spar, and munde; west, producing stones of black ore.

BODMIN WHEAL MARY CONSOLS.—In the 22 fm. level the lode, No. 3, is 2 ft. wide; the back of this lode will set on tribute when we have holed the winze; No. 6 lode, in this level east, is 2 ft. wide, 15 in. of which is good work; and driving west, 18 in. wide, with ore disseminated throughout. The two men extending east on No. 3, in the 10 fm. level, are opening ground for tribute, and the lode improving. We shall cut No. 6, driving south in the 10 fm. level, in a fortnight. The pitches on No. 4, in the bottom and back of the adit, are much improved, and producing ore of good quality.

BRYN-ARIN.—The 20 fm. level, driving west from

and clear the south level, which we are now doing. A new pitch has been set south of the engine-shaft in the back of the level. The foundation of the engine-house will be got out in a few days.

GEORGE AND CHARLOTTE.—The lode has been again cut into in the shallow level, driving east from cross-course, where a leader of rich ore has been met with in a strong lode; the north lode in this level is looking much as when last reported. The communication has been made between the old workings and the shallow level, which has laid open tributary ground. The run in the middle level has been secured, and we have commenced driving east on the lode, it being at present small. The shooting on the top of the hill is being continued, but no other lode has been met with since last report. At William and Mary side of the hill, the lode in the rise against the whin-shaft is much the same as last report, producing good stones of ore. The lode in the whin-shaft, sinking towards the above rise, continues to look promising—1 ton of ore per fm.

GOGINAN.—No change of importance has occurred. The 130 and 120 fm. levels are yielding about half a ton of ore per fathom. The stopes in the upper levels 4 to 1 ton per fm. The 30 fm. cross-cut from the boundary shaft has passed through 13 feet of the lode lately intersected, and has not yet reached the north wall; it is composed of spar, jack, clay-slate, and spotted throughout with lead ore; it has a very promising appearance, though not rich.

GREAT WHEAL BADDERN.—In the 51 fathom level end the lode and branches are from 2 to 3 ft. wide, with rich leaders of lead throughout; it may not be amiss to repeat that we are more than ever confirmed in our hopes of large returns from this level; the stopes in the back, both east and west of Tweedale's shaft, are highly productive, and opening in fair ground. In the 40 end the ground is a little harder, and lode not quite so good, but which we expect will improve shortly. Judging from the character of the lode; the stopes in the back, east and west of Buckley's, are without alteration since last reported. In the 30 end, east of Burgen's shaft, lode very promising, producing rich lead-ground moderate for driving; the stopes in the back are producing fairly, and promise well. The 20 end continues to present good prospects, ground still fair, and lode composed of rich lead, mundic, and spar; the stopes east and west are more productive than usual. We have resumed driving the adit, having completed the plates at Burgen's 20 and 30 fm. levels. We are strongly of opinion that new lodes mentioned for the last two or three weeks, is a separate and distinct lode westward through the mine for at least 100 fathoms in length; we have opened a little further upon this lode during the last week at the point of intersection east, and find it very satisfactory. On Saturday last we directed a cross-cut south from the old lode, about 70 fms. west of the junction—we calculate upon cutting the lode at this point by 4 fathoms driving. The tribute pitch in the adit, on the counter lode, is still producing good work. The pitch on the old lode, in the bottom of the adit, contains a good branch of lead. We have a pitch working for tin and mundic in the back of the 20, west of Sunderland shaft, which is producing average work for tin. The setting, pay, and sampling of about 60 tons of lead ore took place on Saturday last, in due order. We shall be ready to sample another parcel of lead ore on the 30th of July. The surface and dressing operations are progressing steadily.

HENNOCK.—The shaftmen have finished the plat, and will put in the penthouse in the early part of the week, and will commence sinking under the 30 fm. level for the bearer and cistern. The men have holed the winze, and will commence cutting through the western lodes in a day or two.

HERDOSFOOT.—The lode in the 137 end south is 2 feet wide, yielding 10 cwt. of ore per fm. In the north end of this level it is 3 ft. wide, very regular and kindly, but at present poor. In the 127 the lode is 1 ft. wide, yielding saving work; the south end is driving by the side of the lode in favourable ground. The lode in the 117 south is 2 ft. wide, and worth 21 cwt. of ore per fm. In the 106 the lode in the south end is small and poor. The 94 south is being extended by the side of the lode, which has not been taken down since the setting-day. The lode in the 89 end south is yielding saving work. In the 70 we are driving by the side of the lode; the ground is much more favourable than it has been for some time past. The stopes throughout the mine are looking as well as usual, and much the same as when last reported. We shall sample on the 26th, and expect to have our usual quantity of 80 tons. All our machinery is in good working order.

HOLMBUSH.—The ground in Hitchins's engine shaft, sinking below the 132 fm. level, and in Wall's engine-shaft, sinking below the 100, is getting more favourable as we proceed with them. The lode in the 132 fm. level south is 4 ft. wide, composed of soft quartz, pries, and stones of lead, opening tributary ground; the same remarks will apply to the lode in the rise over this level. The lode in the western stopes in the back of the 132 is 18 in. wide, producing 3 tons of copper ore per fm.; the lode in the eastern stopes will produce 2 tons of ore per fm. The lode in the 132, west of the diagonal shaft (north part), is 14 in. wide, which will produce 1 ton of ore per fm. The lode in the rise over this end is 12 in. wide, composed of mundic, spar, and stones of ore. We have at last succeeded in getting four men to resume the driving of the 120 fm. level, east of the cross-course, on the flaplock lode, which is 3 ft. wide, producing stones of ore. The same lode in the 110 fm. level east will produce 2 tons of ore per fm. The lode in the 100 fm. level east is 20 in. wide, composed of spar, mundic, blonde, and stones of ore, and it appears likely that an improvement will take place shortly. The lode in the 100 fm. level, west of Wall's engine-shaft, is 3 ft. wide, composed of soft white quartz, mundic, and copper ore, producing 12 ton per fm.; I never saw it so productive or so promising before, and at deeper levels I have no doubt it will be found a very productive and well paying lode; I ground my belief in the vast quantity of mundic there is in all the levels explored we are getting around a parcel of lead ores as fast as we can.

KIRKCUDBRIGHTSHIRE.—The lode in the 74, west of Stewart's, is 4 ft. wide, yielding 5 cwt. of lead per fm. The 74, east of Gilpin's, is 3 ft. wide, with good stones of ore; the 74 west is 5 ft. wide, with small spots of ore. In the rise over the 62 west it is 24 ft. wide, yielding 5 cwt. of lead per fm. In the 50 west it is 5 ft. wide, with 1 ton of ore per fm. In the 40 end, west of ditto, it is 5 ft. wide, with a good branch of ore coming in the end.

LLWYNNALEES.—The 14 fm. level west is still looking very good; the stopes from 5 to 20 fms. west of western winze, over the 14 fm. level, for 3 fms. high, are not quite so good as last week. The stopes from 5 to 20 fms. west of western winze, over the 14 fathom level, from 3 to 5 fms., 5 fms. high, are much as last week. The stopes 5 fms. west of western winze, over the 14, from 3 to 5 fms., 5 fms. high, are not quite so good. The rise 6 fathoms west of western winze, is much as last week. The 24 west contains about the same quantity of ore as last week, but looks much more promising. I have put the men from the 24 fm. level to sink the London shaft 2 ft. deeper, for a fork, or as a reservoir, as the London shaft lifts, drawing the water direct from the bottom of this level, takes up a good deal of fine gravel stuff, which heaves out the leather of our boxes and clacks very much sooner than it should do, as well as causing great hindrance by changing the boxes and clacks so often. The engine has been consuming 1 ton of coal in 24 hours, during the time we experienced such heavy rains, but has kept the water out of the mine.

LYDFORD CONSOLS.—At Wheal Mary, the lode in the gossan shaft is large and kindly, being composed of spar, pries, and capel, with spots of lead. At Wheal Adventure, the lode in the adit end south is increasing in size, composed principally of flocks and gossan, with spots of mundic.

MACCLESFIELD.—In compliance with your request, I have inspected the operations at the Macclesfield Copper Mine, and find that since my first inspection the great north, or newly-discovered lode, has been opened upon, so as to prove its character for more than 40 fms. in length, the whole of which distance presents a very favourable appearance, and is from 8 to 9 ft. wide, with a fine gossan, and good stones of copper intermixed with spar and mundic. The adit level is driving in a fine channel of killas, and will cut the lode at a depth of 25 to 26 fms., and, judging from the appearance where opened upon in the hill, I expect a good paying lode in it. As there has been no work done upon the other lodes since I last inspected them, I can add nothing on this head to my former reports.

MERLLYN.—At the whin shaft the men are engaged cutting lode preparatory to sinking; this shaft will be resumed the early part of next week. We commence sinking a winze east of the whin-shaft, below the 26 fm. level, in a day or two. The 16 fm. level, driving west from the whin shaft, has intersected the cross-course; the lode is producing lead work about 5t per fathom. We have commenced a winze in bottom of 15 yard level, to communicate with the cross-cut in the 16 fm. level from engine-shaft, which is requisite for ventilation; it would also give a trial to this piece of unexplored ground. The winze is sunk about 6 feet in this short distance; the lode is much improved, worth from 18t to 20t per fathom. The engine-shaft is progressing very favourably.

MILWR MINES.—Since my report of the 28th May the water has been drained to the 160 yard level, and the drawing-lift from the 140 to this level put into proper repair. One of the main lodes in this part of the mine having passed through the engine-shaft between the 140 and 160 yard levels has given us much labour and difficult work in repairs, having had to substitute side and end timber, and to remove two bearers, 2 ft. square, across the engine-shaft, supporting the heavy ground now otherwise secured. This has taken up much time, and although the shaft has long since been secured and cased above the 140 yard level, still we have not been able as yet to draw from either the 140 or 160 yard levels. We are now casing the shaft between the 140 and 160 yard levels, and hope to get the whin-engine to draw from both levels by the end of this week. The whin-shaft below is so filled with timber, that we could not put a lift of pumps into it; still we have been lucky, and have dropped 10 fms. below the 160 yard level to the 180 yard level, where it rests on, we suppose, some 5ft bearers. This lift, put to work on Saturday last, has drained 5 fms., and may be expected to go to fork about the end of this week, when, if it is the bearers only which stops the lift, we may hope to have another drop of 10 fms., which will drain the bottom level in this part, and we may reasonably hope to see the bottom of the mine in a fortnight or three weeks from this time. The coming water to this engine, in the 160 yard level, is about 5t strokes per minute, and about 3 strokes at Milwr when in fork to the bottom. There is a good course of ore in the bottom of the 112 yard level, on a vein which we believe to be all white to the east of the present workings, and, from appearance, likely to do well when it can be got at in the 140 and deeper levels, and we may hope to cut it in the 140 yard level in a month or five weeks after the level is cleared. We have not been able to work any pitch below the 112 yard level as yet for want of drawing. Other pitches are turning up nearly as usual. We hope to sell 25 tons on Thursday next. We have commenced driving the bottom level west from Milwr, on Milwr vein, towards Brynford Hall, on lode 1 ft. wide, in limestone, with lumps of ore and clay. We have also commenced driving the bottom level west from engine-shaft, on Clawdd y-fordd vein, in limestone; the vein is 2 feet wide, with clay and ore. We are also driving the 45 fm. level from Brynford Hall mine east, to lay open the ground between the two mines. These levels are about 150 fathoms apart, the latter one being 30 fms. higher than the former. Taking these mines as a whole, from all appearance there is every reason to hope that they will, in a very few months, realise our most sanguine expectations, and bring large returns to market.

JUNE 26.—The lift of pumps in Herward shaft belched the 180 yard level; it has this morning gone in fork, and we may hope to have another drop at the end of this week.

NANTEOS.—The sinking of Taylor's shaft is proceeding favourably—lode 4 ft. wide, with some stones of ore. The 40 east, on south lode is unproductive. The 30 west is producing 8 cwt. of lead ore per fm.; the 30 west, on south lode, 12 cwt. per fm.; the 30 east, on south lode, 15 cwt. per fm. The stopes are yielding the usual quantities of ore, and the appearances generally are more promising than they were.

NORTH TAMAR CONSOLS.—In the rise going up from the 10 fm. level to ventilate that part of the mine, we have cut a good bunch of rich silver-lead; we discovered the lead about 4 fms. over the 10 fm. level, and find the branch of lead is going down behind the timber. We are paying 20s. per fm. for rising, and the lode is worth 10d. per fm., and is going north and south, and up and down, and is likely to continue.

NORTH WHEAL ROBERT.—The lode is looking much better, and some very splendid stones of ore have been taken out this week.

PENNANT AND CRAIGWEN.—I am glad to be able to inform you that I have never seen the lode looking so well in No. 1 adit as it is at present. It is now nearly due east and west; this may, perhaps, give us from 1 to 2 fms. more to drive before we get into the junction of the porphyry and killas. The ground in Bush's adit has

altered for the better. There is now in the forebore many strings of spar and mundic, which is great relief for the blasts.

PETER TAVY AND MARY TAVY CONSOLS.—We have taken down the lode in the engine-shaft for 5 ft. high, from which some rich work for tin has been drawn to the surface, with some rich stones of copper ore; this work last sent up is quite equal to any that has been sent to the surface since the discovery, the tin being much stronger, or larger in grain, than when the first discovery was made. I am happy to say the lode never presented a better appearance in the bottom of the shaft than at present. In commencing another stop in the new wheel-pit we have uncovered more of the lode, which presents a very good appearance, producing good spots of ore, mundic, and peach. The men are getting on with all possible speed in excavating the ground in the wheel-pit, which I expect will be ready for the masons to commence walling by the 6th July. I was at the foundry on Friday (June 20), and find they are getting on very satisfactorily with the castings.

RAED CONSOLS.—Although the new adit is not yet holed to the old workings, present appearances, I think, justify me in stating that we are closely approaching them; and, if things go on favourably, I hope we shall accomplish it in a few days. We shall then shortly afterwards get into the place where the tin goes down. The men near the cross lode have now cut down the shaft to the present bottom, which is 2 fms. under the adit. The lode will commence sinking the shaft at once. The water is still quick, but it draws down the whole on the cross lode; and we intend shortly to put men on to stopes on the lode, so that we shall soon be raising large quantities of tin-stuff. Mr. Gray has visited us several times of late; and it is our opinion that, in order to facilitate the workings vigorously, and to develop the resources of the mine to the best advantage, it is necessary that preparations should be made for an engine; and, with this in view, the ground has been selected, and the foundation got out for a smelting, small office, and carpenter's shop, all under one roof, which will be built on a cheap plan. The masons will commence building in a day or two.

PRINCE ALBERT (TIN AND COPPER).—We are progressing favourably with the diagonal shaft, and the arch of ground between the deep and shallow adits is producing good tin-stuff. We can set a pitch to two men, and immediately after we have put up a whin we can lay open a great deal of good tribute ground. Our prospects are, therefore, most encouraging. We have not yet suited ourselves with an engine, but jarre making every necessary arrangement till we purchase one.

SOUTH TRELAWSY.—We continue driving the cross-cut west with six men, ground moderate, a dark blue killas; any lode ought to prosper in such a stratum as we are now in.

TRELAWSY.—Trelawny shaft is sunk 13 fms. 5 ft. under the 92 fm. level, and the ground is still favourable. In the 92 end north the lode is 3 ft. wide, and worth 7t. per fm. In the south end, in this level, the lode is 2 ft. wide, and worth 9t. per fm. In the 82 end north the lode is 3 ft. wide, and worth 17t. per fm. In the 72 end north the lode 2 ft. wide, and worth 8t. per fm. At the north mine in the 78 end, north of Treborth, the lode is 2 ft. wide, and worth 8t. per fm. In the 68 end, north of ditto, the lode is 2 ft. wide, and worth 6t. per fm. Smith's shaft is still in fair ground, and requires to be timbered; it is now down 15 fms. 1 ft. below the 55 fm. level. In the 65 end, north of ditto, the lode is 1 ft. wide, and worth 5t. per fm. The stopes in this part are looking fair; but in the south mine they are not turning out quite so much work as usual. We sampled on Saturday last 100 tons (computed) silver-lead ores of good quality.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's, the lode is 18 in. wide, with stones of ore. In the 90 fm. level, west of ditto, the lode is disordered by a cross branch. In the 80 fm. level, west of ditto, the lode is 18 in. wide, with stones of ore; in the same level, east of Christoe, the lode is 15 in. wide, with good stones of ore.—Parent Lode: In the 64 fm. level cross-cut, north of Parent engine-shaft, we are driving to cut Parent lode; in the same cross-cut south we are driving to cut Middle lode. In the 30 fm. level, east of ditto, we have cut the lode, which is 2 ft. wide, with stones of ore, but is not yet clear of the cross-course.—Middle Lode: In the 40 fm. level, west of cross-cut, the lode is 18 in. wide, with good stones of ore. At Burgess's shaft, below the adit, the lode is 15 in. wide, with stones of ore.

TRELLOWETH.—Harrison's shaft, sinking below the 12 fm. level, is down 94 fms. In the past week they have sunk 12 ft., and the lode at present is improved—produce 24 tons good quality copper ore per fm.; the lode is much richer the last 6 ft., and I expect in another week to give you further particulars. I am not certain that we have cut all the lode in the 32 cross-cut south from Coles's engine-shaft, and, as I intend driving this level south to cut the south lode, I have set to drive in that direction, and believe we shall find before us the best part of the main lode. The engine-shaft has been sunk in the past week 4 feet below the 45 fm. level, and the 45 cross-cut for the same time is driven 6 feet. If we find the lode continues rich in Harrison's shaft we shall make a 22 fm. level from that shaft.

VICTORIA.—Operations are commenced in the adit north and south, the former by four men at 40s, and the latter by two men at 80s. per fm. We contemplate sinking a shaft on the south adit, to take both the tin and copper lodes in drift. We are induced to resort to this measure from having taken up some good specimens of copper from one of the south lodes, and we believe that we cannot put a shaft at any place better than in the southern part of the set; in doing so we shall have a most convenient distance for flat-rods, and in every respect command the operations of the mine.

WELLINGTON.—The lode in the 50 fm. level, east of the engine-shaft, is from 1 to 2 ft. wide, hard and poor, being composed principally of spar and mundic; in driving north in this level, west of this shaft, we have intersected No. 1 lode, and are driving on it; this lode here is 1 ft. wide, composed of blonde, spar, and a little copper ore, but of no value at present. The lode in the 20 fathom level, east and west of the western whin-shaft, is from 1 to 2 ft. wide, producing a little copper ore. In driving north in the western adit we expect we are near the lode, the ground showing favourable indications. We have just commenced sinking the shaft on No. 3 lode under the adit level—lode here 2 ft. wide, producing good stones of ore. Last setting day we set two pitches on this lode under the adit level—four men in each end. The lode in the east end is split by the cross-course that was named in the last report, but we think these two parts will soon join each other; the lode in the west end is 1 ft. wide, worth for tin from 4t. to 5t. per fm.; this lode, so far as opened on, will pay, the ground being fair for exploring—we now give 2t. per fathom for driving east and west; you will see from this that a great quantity of ground can be opened in a short time. We sold on Wednesday, the 18th inst., 45t. 10d. worth of tin.

WESTON (LEAD).—The following report, from Mr. Adam Murray, jun., was read at the meeting, and referred to in last week's Journal:—This property is situated in a very productive lead district. Its geological position is among the lower Silurian rocks, which appear to owe their elevation to volcanic influences, emanating from a range of rocks similar to those in North Wales. The sett is very extensive and contains several lodes; the principal one is the "Rider," known as a most productive one in the contiguous "White Grit Mine;" this lode runs north of west and south of east 15°, and underlays south; it is of considerable breadth, and traverses the high ridge below the Corndon Peak. Two other lodes have been discovered in a combe about 50 fms. below this ridge, and from the appearance of the excavations on the backs of one of these, evidence of considerable quantities of ore having been taken out is visible. The other lode has only been recently opened. These two lodes bear similar characteristics, and differ from the Rider both in the construction and direction. They form an angle with the latter at some point, probably not far from the present workings on it. The amount of work performed on this property is considerable, and judiciously planned. It consists, firstly, of a large driftway, laid with iron rails, and extended from the combe 700 yds. towards the Rider lode, and the old workings thereon, which it will intersect at a depth of 42 fms. from the surface, and 22½ fms. below the first named adit, and in fine ground with few obstacles. The lode here 2 ft. wide, producing good stones of ore, which are of a slight character, being impeded by the water, but to allow sufficient water connected with deposits of lead to auger most favourably of it. When this driftway, which is partly in a course of alluvium, spar, containing spots of lead, is further extended by a divergence south, it will in the distance of 12 to 15 fms. intersect the Rider lode, passing out of gressions in 3 or 4 fms. driving, probably, and if so, the extension may be performed for 60t., when the facility of this tramway, at such an increased depth, will, undoubtably, prosecute this level lode effectually, and very likely make some important discovery. The working on the first-named adit also shows considerable promise: it is of a different character, and much smaller. The adit on its course has intersected some large sheets of lead connected with a flockan. Winzes have been made on these sheets; but from the other side of the hill, a deeper level is within 15 fms. of the last of the sheets of ore cut, and 22½ fms. below the first named adit, and in fine ground for driving: in its further extension important results may be expected. The second lode in the combe has only lately been discovered; it is parallel with the last named; its bearing is north-west and south-east, and underlays south west. To take this underlay of the lode, Readley's shaft is sunk, and it will probably intersect it at 15 fms. sinking; this shaft is 7 fms. deep, and at 12 fms. the lode will cut per cross level. The shaft is sinking by six men, at 3t. per fathom. The amount of work performed, and tending towards future explorations, is equal to about 2500t., and the materials on the mine are equal to 300t., and the prospects are great.

WEST WHEAL JEWEL.—The 85 fathom level, west of Williams's cross-course, on Wheal Jewel lode, is worth 6t. per fm. In the whin-sink in the bottom of the 70 west lode not taken down in the past week. The 57, west of Hodges's cross-course, on Tolcarne's lode, is worth 7t. per fm.; the stopes in the back of this level are worth 20t. per fm. The 57, east of Hodges's cross-course, is worth 5t. per fathom. The whin-sink in the bottom of the shallow adit,

is looking pretty well; it is 9 in. wide, composed of quartz, interspersed with rose clear, metal fio, and white silver, a very pretty lode indeed, from which we may fairly calculate on raising a considerable quantity of ore. In the other chifion north, we have still good stones of ore coming from the lode, which fairly indicates that the lode is good from one chifion to the other. Now this appears to be a valuable piece of ground, for the two extremes are a great many fathoms apart.

COLORADO.—In the chifion at the bottom of this mine we have a lode 2 ft. wide, very metallic, and giving stones of metal fio, with a little rose clear. In No. 3 level the lode is 16 in. wide, disordered. We have discovered a lode to the north, running obliquely through the soft, giving some beautiful plumes, and from whence we may expect some reasonable returns.

DESCUBIADORA DE ORO.—We have returned the metal in the last month, which gave 3 tons of gold, and we are now breaking a little more. On the whole, our prospects are very encouraging.

LINARES MINES.—The following has been received from Mr. H. Thomas:

Linares, June 14.—The engine-shaft sinking under the 45 fm. level, and the cross-cut from the 55 fm. level to said shaft, are both proceeding satisfactorily. The lode in the 55 fm. level, east of Wilson's shaft, is worth 6 tons per fm., and I am expecting in every report to advise you of this level having drained the Tanteo, which up to this time has not occurred. In driving the same level west of Wilson's shaft, the lode is of a favourable character, and worth 14 tons per fm. The lode in the 45 fm. level, driving west of San Juan shaft, is large, and chiefly composed of gossan, containing a small bunch of lead, worth 1 ton per fm. We have found gossan in other parts of the mine, at the same depth, and even in the 55 fm. level. The men driving the cross-cut in the 45 fm. level, east of Shaw's shaft, have as yet met with nothing worthy of notice, nor is there anything new in sinking Shaw's shaft under the 45. Our tribute pitches are turning out pretty well; that working under the 45, east of San Pablo, has much improved during the past week, and at present contains a lode worth from 8 to 10 tons per fm. You will see, on reference to the section, that this is east of the Tanteo, and is promising for continuance of good ore ground in the bottom level, coming eastward.

One weighed in this week, 31 tons 14 cwt.; ore in stock, 1033 tons 14 cwt.; pig-lead in stock, 61 tons 16 cwt.

ROYAL SANTIAGO MINING COMPANY—[Received June 21.]

Cobre, May 12.—The ore which can be raised for the four months ending 31st August must mainly depend on our discoveries from this date; what is at present in sight will scarcely warrant an estimate of 50 tons a month. Should the 10 fm. level west, however, continue to yield as now 10 or 20 fms. further, and the 22 strike into the same shoot of ore (which is what we fully expect), we should then probably be able to double, or even treble, the amount. When Mr. Hoskins left, the water could be kept by four miles, changing every six hours; we have now to apply eight miles, and to change every three hours. I have had to purchase 14 miles, and to greatly increase the expense of feeding them. We are gradually forking the water, but it is at a very slow rate. The bucket-lift is to be dropped to-day to the bottom of Thompson's shaft. The 22 fm. level continues very wet; the lode is still close, and keeps back the water; we shall probably, when a change in the lode takes place, have an increase for a time from this end. You must not consider this influx of water a bad omen, but the contrary. I look forward to have in this level, before reaching Taylor's shaft, a course of ore, and the end dry: I expect it from the 10 fm. level having passed through a similar lode previous to its meeting with ore, which ore is evidently dropping eastward. It is now evident we cannot get under the 32 fm. level, in Perseverancia, with mule-power, unless another such engine as we have now is put up at another shaft, which would require 50 more miles. The extra expense of working those mule engines over steam would in a very short time cover the whole cost of a steam-engine. We have decided on sinking the engine-shaft (already sunk by Mr. Hoskins) several fms. in Fortitude pertencia. It is expected to intersect the lode 60 to 70 fms. under the adit level; it will be indispensable should steam be applied, and will be a great relief to the mules, should they continue to be used. I should have liked to have seen more of the lode developed to the west before I fixed upon the spot for the engine-shaft; but seeing the quantity of water we are likely to have, and also the shoot of ore in the 10 fm. level, which it will command, and very suitably, I think no time should be lost in getting it down to the 32 fm. level. This work will take a great many labourers, and we must, I believe, postpone the trial at Trevenez, as we cannot spare labourers or mules to draw the whim. All our force is now concentrated in the levels and shafts, exploring west of Thompson's shaft, and in the two shafts in the Angolita—the off stations and trial cuttings are set to free labourers. The 10 fm. level is 8 fms. west of Taylor's shaft; since I last wrote you the end has given a good deal of muddle, it now again yields fully 5 tons per fm., and looks fair to continue. In the bottom of the level we have been stopping to raise the quantity required to furnish the Sir I. L. Goldsmith; the lode here yields 6 to 7 tons of ore per fm., the dust contains as yet (being on the top of the bunch) a great deal of muddle; the stone is very compact yellow ore, and so far is about one third part of the whole raised. In Taylor's shaft the ore is 1 ft. wide, and we expect it to improve in every fathom we sink. There is a little water, which is an hindrance.

ANGELITA.—Goodhope shaft was not looking so well when I saw it on Friday last in regard to ore. To-day I am told the ore is 1 ft. wide, yielding nearly 2 tons per fm.

MINING APPOINTMENTS.

JUNE 28. Pay at Treavean, Trethellan, Grambler, Condurrow, West Seton, Tywarn-hayle, South Trellawny, West Alfred, Copper Bottom, Callington Mines, South Frances, North Roskar, and Trellawny.

30. Santa Ana meeting.

July 1. North Pool account, on the mine; the Forest Mining Company meeting.

2. Devon Consols and other mines sampling; West Wheal Jewel, Callington, and Wheal Golden meetings.

3. Ticketing at Camborne—North Roskar, Tincroft, and other mines; W. Trescol, Pay at Wheal Basset, Carr Brea, and East Pool.

4. Pay at Devon Consols, Perran St. George, Dolcoath, Stray Park, Trannack and Bosenne, West Wheal Jewel, Polberrow, Par Consols, and Botallack.

5. South Frances account, on the mine.

7. West Alfred account, on the mine; Consols and Treviley sampling.

New Patents.

SPECIFICATION ENROLLED DURING THE PAST WEEK.

B. RODHAM, of Gateshead, practical chemist; and E. R. HOBLYN, of Stepney, gentleman: For improvements in machinery or apparatus for condensing and purifying smoke, gases, and other noxious vapours arising from fire-places and furnaces, or from chemical and other works, and in rendering the products resulting from such condensation and purification available for the manufacture of various colours. The patentees conduct the vapours and smoke from fire-places and furnaces into a circular chamber through an opening near the top, which is made somewhat of a funnel-shape, to allow room for the vapours to expand and present an extended surface to the action of a series of streams of water admitted through pipes at the top of the chamber. A fan, with blades constructed so as to exhaust the smoke in a downward direction, is caused to revolve within the chamber at a high velocity; and the combined action of the water and fans effectually purifies and condenses the noxious particles, which fall into receivers arranged so that the products which pass beyond the first receiver are condensed in the succeeding one. These products, after having been washed, are said to be suitable for the manufacture of various colours, as to the character of which, however, we are, for any information afforded us by the patentees, left quite in the dark.

Claims.—1. The application of fans or blades, placed within a chamber, and caused to revolve at a high velocity, in combination with a stream or streams of water, for condensing and purifying smoke, fumes, gases, or vapours from their noxious and poisonous particles. 2. The arrangement of receivers to retain the products to be used in the manufacture of various colours.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

R. Fletcher, of Blackdowns Farm, in the parish of Ebrington, Gloucester, farmer, for an improvement in obtaining motive power.

J. Brazil, of Manchester, gentleman, for certain improvements in dyeing, and in the preparation of dye-woods.

H. E. Hodges, of Southampton-road, Middlesex, gentleman, and W. Brockedon, of Devonshire-street, in the same county, for improvements in surgical instruments.

A. Parkes, of Birmingham, for improvements in separating silver from other metals.

G. J. Firmin, of Lambeth-street, Goodman's-fields, Middlesex, manufacturing chemist, for improvements in the manufacture of oxalate of potash.

J. Holmes, of Birmingham, machinist, for improvements in machinery for cutting and stamping metals.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Laurie and Marner, Oxford-street, perchless carriage.—J. Kerslake, Birmingham, boot.—J. Kimberley, Birmingham, door-spring.—B. Hyam, Manchester, safety pocket.—G. and H. Levy, Liverpool, hat cigar holder.—W. Alcock, and W. C. Kilpin, Friday-street, four-fold portmanteau.—I. C. Forster, Newcastle-street, Strand, hat.—W. Price, Chancery-lane, spring suspended for barristers' and clergymen's gowns.—J. Fry, Sunbury Mills, furrows for millstone-face.—J. Dyball, Deptford, carriage-springs.—W. Butcher, St. James's-place, Bermondsey, self-acting chimney guard.—G. Myers, Belvedere-road, Lambeth, window-sashes.

PROVISIONAL REGISTRATIONS.

W. Thomson, King's College, for working of hair.—J. P. Oates, Lichfield, perfect equine valve for brass musical instruments; also, short-action valve for cornets.—E. Poulson, Sunderland, reverse levers for shipping.—*Mechanics' Magazine*.

IMPROVEMENTS IN STEAM-BOILERS.—A new construction of steam-boiler has been patented by Mr. Thomas Champion, of Philadelphia, consisting of four or more annular cylinders one within the other, all connected together by tubular braces, and at distances equal to the thickness of each pair of annular surfaces. The tubes contain a number of evaporation openings, so arranged that the steam passes upwards into a steam chest placed immediately above. The fire-box and ash-pit are immediately under the chimney, but not there connected, the products of combustion and heated air passing under the outside annular cylinder, and returning between the interstices of all, which thus form a flue to the chimney. This arrangement allows a free ebullition of the water and passage of the steam, with settlement of dirt and impurities in the lower parts, from whence they may be blown off. A large heating surface is thereby exposed, and rapid evaporation secured. There is some difficulty in constructing these concentric annular cylinders, but to enable the maker to get at the rivets and finish them securely, he leaves the ends open until fixed, when he effectually closes them by metallic plates, pressed against by metallic tapered springs.

THE CORNWALL RAILWAY.—A correspondent suggests whether the time has not arrived for the re-prosecution and fully carrying out the railway from Falmouth to Truro, St. Austell, &c. He says there is plenty of money in the county, trade and commerce good, and a speedy communication with London, and of one part of Cornwall with another, would increase, to an enormous extent the best interests of the mining and commercial community. The Cornwall Railway, connecting as it will Falmouth Harbour and Penzance, is destined to vie with Southampton and Plymouth, only let the Government give to the locality its due. It is time for Falmouth and Penrhyn to see better days, and the sooner will the shares be appropriated, and the requisite amount secured. Its numerous friends are fully determined to raise Cornwall in the estimation of the commercial world.

ON COPPER SHEATHING, AND THE PROBABLE CAUSE OF ITS DETERIORATION.—NO. II.

BY JAMES NAPIER, ESQ., F.C.S.

Here we find the presence of other metals, even to 1.5 per cent., thought of no consequence, except as a negative test for the presence of a compound supposed to act deleteriously, which, I think, is sufficiently answered by the analyses given by Mr. Prideaux of five different coppers, where it will be seen that the presence of tin and zinc are greatest in the copper most rapidly destroyed:

	New cop.	In wear 30 yrs.	17 years.	5 years.	Rapid wear.
Tin	—	0.08	0.07	0.10	0.07
Zinc	—	0.17	0.09	0.14	0.15
Iron	—	0.16	0.07	0.26	0.13
Silver	—	0.13	0.01	0.14	0.06
Lead	trace	trace	—	—	trace

0.46 0.25 0.61 0.53 0.64

It is to be regretted that Mr. Prideaux did not give the amount of copper per also in these analyses.

Pieces of each of these coppers were put into sea water having a little sal-ammoniac in it, and exposed for 12 days, when the loss was as under:

New.	30 years.	17 years.	5 years.	Rapid wear.
5.1	—	5.7	5	4.6

5.1 0.25 0.61 0.53 0.64

Although there is not much to be deduced from these experiments, as they would require repetition, and without sal-ammoniac in the solution, nevertheless the results correspond with Sir H. Davy's views. That which had lasted 30 years is the most pure, and sea water has the greatest action upon it. Mr. Prideaux also examined the effects of the nails used, and says, in some cases they seemed to have acted as protectors to the copper, it being thickest round them; in other cases as negative, the copper being destroyed round them. When tried by a galvanometer the nails were found mostly negative to copper, but when the nails were covered with verdigris and the copper clean, they were positive. It is to be regretted that an analysis of these nails experimented upon was not given, the omission of which takes from the value of the experiment. I here give the analyses of three qualities of sheathing nails, which may be taken as the general character of the nails now in use for copper sheathing. The first two are by Dr. Percy, taken from the *Chemical Gazette* for 1850:

No. 1.	No. 2.
Copper..... 52.73	Copper..... 62.62
Zinc..... 41.18	Zinc..... 24.64
Lead..... 4.72	Lead..... 8.69
Tin..... —	Tin..... 2.64—9.85

No. 1 is said to have corroded rapidly, becoming rotten at the heads and breaking off; No. 2 is good, and had been taken from a ship's bottom after a voyage to India and back.

The next, No. 3, are sample nails exhibited at the meeting of the British Association, Swansea, analysed by Mr. John Cameron:

No. 3.
Copper..... 60.0
Zinc..... 34.8
Lead..... 0.7
Tin..... 3.8
Iron..... 0.3—9.96

The application of any of these nails to fasten copper is a very questionable practice. About two years ago, Mr. Prideaux resumed the subject of inquiry into the causes affecting copper sheathing, in a series of papers published in the *Mining Journal*, in which it appears that little or no advance has been made to our knowledge of this subject since his former communication to the British Association. In these letters he says,—"With respect to the quality of the metal, I have been called upon to analyse many specimens of good and bad wearing sheathing, old and recent, and to examine a great many more, and have not found in the analyses any characteristic or constant difference between the bad and the good, nor have those which wasted quickest, nor wore worst at sea, been uniformly or decidedly more susceptible to corrosive agency in the laboratory than the very best old samples."

How valuable would a table of these analyses have been, to enable others to draw conclusions, as very often men employed constantly in any particular branch investigate with certain pre-conceived expectations, which cause them to overlook many important circumstances; hence we find Mr. Prideaux expecting the same kind of results in the laboratory as on the vessel, and with this view he adds,—"I have from 20 to 30 samples, distinguished for good or bad sea wear, fixed to buoy in the tide-way under exactly similar conditions, and when these come to be stripped off, if the greater or less waste correspond to their previous sea wear, it may be then fairly referred to quality of the metal, and will form a more trustworthy ground for analytical inquiry." The results of these trials with an analysis of each specimen, I hope, will yet be given to the world.

A trial somewhat similar was made at the request of Dr. Percy, by Capt. James. Specimens of different coppers were kept in sea water for nine months, the loss of each per square inch is given thus:

Electrotype copper lost.....	1.4
Copper with arsenic.....	1.2
Copper with phosphorus.....	none
Specimen copper, marked "from Frobic".....	1.12
Copper (supposedly cementing).....	0.8
Copper from dock-yard.....	1.66
Ditto.....	3
Ditto.....	2.49
Ditto.....	2.23
Yellow metal (Muntz's).....	0.95

Here again want of careful analysis of every specimen, and particulars of condition, render this otherwise interesting experiment useless as data for a proper investigation; however, the object of the experiment was, no doubt, gained by the comparing of alloys of copper and phosphorus with ordinary metals. The results are interesting, and may be usefully applied. The analysis of such an alloy is given in the same paper, whether the exact one subjected to the above experiment is not mentioned:

Copper.....	95.72
Iron.....	2.41
Phosphorus.....	2.41—100.54

The arrivals at Swansea include—A cargo of copper ore from San Antonio (consigned to order); 500 tons of copper ore from Valparaiso; and about 450 tons of copper ore for the Cobre Company.

We understand Messrs. Bankhart have given notice that it is their intention in future to offer for all copper ores submitted for sale at the public ticketings in Cornwall, and that they are ready to pay cash on delivery, upon being allowed discount after the rate of 3½ per cent. per annum.

The shareholders of the Tincroft Mining Company are summoned to attend a meeting on the 17th July, when the report of the committee will be submitted. It is generally considered that a copy of the report should be forwarded to the directors, that they may be prepared with information on such matters as may require explanation.

South Tamar Mines sold on Thursday 95 tons of lead ores, at 15s. 7d. per ton, to Locke, Blackett, and Company.

The biddings for 100 tons of Newtonard's lead ore varied from—Pontifex and Wood, 8s. 8d., to that of the purchasers, Newton, Keats, and Co., at 10s. 6d. per ton.

Callington Mines sampled 45 tons of lead ore.

Trelawny Mine sampled 100 tons (computed) silver-lead ore, of good quality, on Saturday last.

Great Wheal Badern sampled on Saturday about 60 tons of lead ore, and a further sampling will take place on the 30th July; this concern seems steadily to be progressing, both in actual returns of ore and in the discovery of new ore ground, some of which is of superior quality. The 51 fm. level produces already a considerable quantity of ore, and when further developed there is every reason to expect it will be enhanced both in quantity and amount. The stopes are highly productive, and the tribute pitches doing well.

The tin obtained from the Great Polberro Mines in the present month will be about 26 tons, and for the last two months 56 tons. The pitches continue to yield about the usual produce.

Wellington Mines sold on the 18th inst. about 45t. worth of tin.

Lewis Mines have sampled 30 tons of tin. East Wheal Leisure sampled on Tuesday 147 tons of copper ore. The tribute department is looking well, and 50 tons per month anticipated from the ore ground already opened.

Wheal Russell sampled on Friday 80 tons of copper ore.

At Wheal Crebor, 32 tons of copper ore have been weighed this week.

At East Wheal Russell some splendid gossan, strongly stained with "greens" of copper, has been raised from Muirchison's shaft.

At Trelothew Mine, the shaft at Harrison's is nearly down 22 fathoms, lode yielding 2½ tons of good quality ore per fm. The engine-shaft under the 45, and cross-cut in that level, are progressing favourably.

At Calstock United Mines, we understand they have cut into a lode on the common, which shows a favourable appearance for copper ore. Some good tinstuff has been brought to surface by the drawing-machine, which was set to work on the 19th. The Bentinck stamps were also put to work; the others will be very shortly. The ovens of the burning-house, bubbles, racks, &c., are completed. The silver workings are let on tribute at one-fifth clear to the adventurers. In a week the kilns will be ready to receive muriatic, when regular monthly returns will be made, and tin bi-monthly.

At East Wheal George, as expected, by driving the cross-cut south in the 23, they have found the main part of the lode standing, and which presents a very kindly appearance, 3 ft. wide, saving work. The lode in the winze under the 12 west is worth from 8d. to 10d. per fm.

At Wheal Golden, Thorne's shaft is sunk and cased to 8 ft. under the 87 fm. level; and on driving an 87 fm. level the returns will be greatly increased, as the lode is productive both north and south. In the winze under the 77 the ground is good, producing 9 cwt. of ore per fm., and north 7 cwt. per fm. The 70 north produces 6 cwt. per fm., and the rise in ditto 10 cwt. per fm. In the 60 north the ground is moderate, producing 3 cwt. per fm. Webb's shaft is communicated to the 70. Young's shaft will be immediately commenced. The tribute pitches are looking very well.

At Wheal Anna Consols, some parts of the engine have been already delivered; and the most active exertions are being made by Capt. Puckey to expedite operations.

We have the pleasure of referring to the report on Caradon Wood Lead Mine from the manager, Capt. R. Dunstan, of West Caradon, in our Mining Correspondence. It is believed that this cannot fail to prove a profitable and lasting concern.

An improvement of an important nature has been reported in Wheal Venton. The north end in the 30 fm. level is producing fine stones of lead, and continues improving; the lode in the south end is cut, but is at present disordered.

We are informed that a deputation have inspected Wheal Tonkin, and have satisfied themselves of the correctness of the several reports from Capt. Sparro. This visit to the mine was occasioned by the insinuations of "Watchman," in a former Number of the Journal, which are now proved to be perfectly groundless.

At the Kenmare and West of Ireland Copper and Silver-lead Mining Company's meeting, on Thursday, Robert J. R. Campbell, Esq., in the chair, the reports of Capt. Hoskin, Paul, and Thomas, were read, and gave unanimous satisfaction. The chairman stated that the board of directors and secretary had recently returned from their visit of inspection; that the superintendent was willing to receive a per centage from the actual returns in lieu of a fixed salary, and the property had been duly made over to the trustees nominated for the benefit of the company. The superintendent's report, with the proceedings of the meeting, will be found in another column. It affords us much pleasure to learn, that Capt. William Thomas, manager of the Cosheen and other mines in the county of Cork, has been appointed manager of the Kenmare Mines. We think a more judicious selection could not have been made than the appointment of this gentleman, as from his long experience in Irish mines, and having surveyed the property in question as far back as 1846, and being intimately acquainted with the different strata of the district, there is every prospect that, in his hands, the mines will not only be economically and systematically worked, but speedily brought into a profitable state of operations.

At the Wheal St. Agnes meeting, on Saturday, the accounts were examined and passed, showing—Labour cost for March, 38s. 2d. ditto April, 30s. 0s. 1d.; May, 35s. 8s. 7d.; merchants' bills, 112s. 6s. 4d.—215s. 17s. 11s.—By call, 128s.: leaving balance against the mine of 87s. 17s. 11d. A call of 1s. per share was made, and the salaries of purser and manager were fixed at 2½ guineas per month each.

At the Nansegellan Mine meeting, on Monday, the accounts were examined and passed, showing—Labour cost for four months, to end of May, 401s. 16s. 6d.; cost of 30-inch cylinder engine, with boiler complete, 625s.; merchants' bills, 475s. 8s. 7d.; dues, 14s. 7s. 1d.—1503s. 12s. 2d.—By balance last account, 25s. 7s. 8d.; tin sold, 27s. 1s. 9d.; call, 640s.: leaving balance against the mine, 811s. 2s. 9d. A call of 4s. per share was made. The report states that the engine is working well, and the mine will soon be cleared out. The daily consumption of coal will not exceed 4 cwt., so that the water charge will be easy. The lodes traverse east and west, or as nearly so as any in the county, and appear to be the same as the Great Work lodes.

At North Wheal Robert quarterly meeting, David Halket, Esq., in the chair, the accounts to the end of April showed—Calls, 2048s.; discount, 2s. 9s. 2d.—514s. 9s. 2d.—By working cost, 67s. 16s. 4d.; office expenses, 5s. 5s.; printing and engraving, 10s. 13s.; books and stationery, 3s. 10s. 6d.: leaves balance in hand to next account of 71s. 9s. 9d. The call made, 512s., will about meet liabilities estimated to end of July. The erection of machinery and other surface operations have progressed very satisfactorily; in two or three weeks the water-wheel will be at work, and the sinking of the engine-shaft resumed.

At East Boringdon Park meeting, the accounts showed—Call, 512s.; discount, 2s. 9s. 2d.—514s. 9s. 2d.—By working cost, 67s. 16s. 4d.; office expenses, 5s. 5s.; printing and engraving, 10s. 13s.; books and stationery, 3s. 10s. 6d.: leaves balance in hand to next account, 427s. 4s. 4d. The engine-shaft is sunk 13 fms. from surface; when down to 20, cross-cuts will be driven out to see the lode. The shade pits east and west show a fine gossan, and productive concern in depth is anticipated.

At a special general meeting of shareholders in Trebelle Consols Mine, Stephen Broad, Esq., was deputed to visit the mine early in the ensuing week, to meet the agents and engineers, and arrange for an engine and stamp, with the necessary buildings, to be erected immediately.

At Cook's Kitchen meeting, the accounts showed—To costs for March, 99s. 16s. 5d.; April, 915s. 2s. 5d.; dues, 55s. 8s. 3d.—1969s. 7s. 1d.—Balance from last account, 1612s. 14s. 2d.; copper, tin, and arsenic sold, 175s. 0s. 6d.; sundry receipts, 44s. 6s. 7d.: leaves balance against mine to next account, 10s. 5s. 10d.

The Derwent Mines meeting, convened for yesterday, was not held.

At Wheal Friendly meeting, on Monday, the accounts from June, 1850, to April, 1851, showed—Mine costs and merchants' bills, 1643s. 15s. 6d.—Balance from last account, 53s. 10s. 9d.; ores sold and carriage, 1552s. 1s.: leaving balance against adventurers, 38s. 3s. 9d.

At Wheal Cock meeting, on Monday, the accounts showed—Balance last account, 171s. 1s. 6d.; costs to end of April, 694s. 3s. 2d.—865s. 4s. 6d.—By call, 200s.; tin sold, 667s. 10s. 4d.; sundry receipts, 15s.: leaves balance in favour of adventurers, 17s. 5s. 10d.

At North Tolgus meeting, on the 10th inst., the accounts showed—Balance last account, 46s. 12s. 9d.; labour cost for February and March, 42s. 10s. 3d.; merchants' bills, 217s. 11s.—692s. 14s.—By call, 640s.: leaves balance to next account, 52s. 14s.

Shares have changed hands in Alfred Consols, South Caradon, West Caradon, Bedford United, South Tolgus, Trehane, Tincroft, East Buller, East Tamar, South Tamar, Trelawny, Mary Ann, Butterdon, Tremaire, Bodmin Consols, Crebor, Caradon United, Wheal Arthur, Wheal Venton, Merlyn, Cook's Kitchen, Tincroft, Garreg, Wheal Lemon.

From the Alter Mines, advices have been received up to the 4th inst. The 20, at Labouchere's, is upwards of 3 ft. wide, containing gossan and gossans throughout, and presenting indications that are highly promising. At the Old Mine, the water has driven them from the most profitable workings. The stope in Slung's sink has again improved to 4 tons of ore per fm., quality of the ore very good. As the snow is fast disappearing, the surface operations will shortly be resumed, and increased returns may then be expected.

From Linares, we notice matters progressing generally; a pitch working under the 45, east of San Pablo, has much improved, the lode being now worth from 8 to 10 tons of ore per fathom. Ore weighed in for the week, 14th June, 31 tons 14 cwt.; in stock, 1033 tons 14 cwt.; and pig lead, 61 tons 16 cwt.

From the Copiapo Mines, advices have been received to the 24th April. The produce of copper ore for March is rather less than February; still the reports from Capts. Water and Nancarrow are of the usual flattering character, and hold out great expectations for the future. Ore of very superior quality has been met with in sundry places, as will be seen in another column, where the reports are inserted in full. A party of Cornish mining lads, from 17 to 19 years of age, are on their way to the mines, where they seem to have vacancies, and these parties will, therefore, prove a great acquisition.

From the Santiago de Cuba Mines, advices up to the 12th of May have been received. The 10 continues good, and they daily expect to meet with the same shoot of ore in the 22, which would tend to increase the monthly returns very considerably. No time should be lost in getting down to the 32 fm. level.

The General Mining Association held their annual meeting on Thursday, when the report and accounts were unanimously adopted, and a second dividend of 10s. declared for the half-year. The operations of the company continue to be satisfactory, and the shipments of coal have increased during the year.

At the Marmato Gold Mining Company's meeting, on Monday, the accounts for the three years the company has been in existence were audited and allowed, showing net profits made, 8256s. 2s. 1d., whereof a dividend of 2700s. for the half-year had been paid in Jan., and the second half, 2700s., was now declared: leaving a cash balance in hand to next account of 2856s. 2s. 1d. Capital expended, 6750s., all of which, except 1350s., had been repaid to the shareholders, who would receive a further dividend in Jan. of 1s. per share, and in all probability 21. 10s. per annum, such was the satisfactory nature of their proceedings.

From Bolivia, it is stated that the news from the mining districts of Corocoro is very cheering—53,834 quintals of copper, the produce of that place, had been shipped from Arica last year, and the monthly production of silver from this quarter alone amounted to 900 marks.

The exports of mineral produce from the republic of Chili in 1850 consisted of—silver in bars, ores, and ingots, of the value of \$3,957,253; gold coined, \$697,556; gold dust, \$35,343; copper in bars, ores, and in sheets, \$3,088,467; giving a total value of about 1,620,000/. exported from the republic during the year, of which \$24,400/ in gold and silver, and 643,400/ in copper.

The exportation of ores and metals from the port of Copiapo during the first quarter of the present year amounted to 137,574 marks of silver, 12,559 lbs. copper in bars, 457,929 silver in ingots, 93,247 lbs. copper ore.

The indefatigable managing director of the enterprising Anglo-Californian Gold Mining Company will be in Birmingham on the 30th inst., to obtain shareholders' signatures to the Deed of Constitution: his time appears to be very valuable, he having to leave that town, after a brief stay, to proceed to others in the north of England, the shareholders being so numerous. As they will probably have for the first time the pleasure of meeting the director personally, it would be well that they should ascertain the locality of the company's possessions, and the whereabouts of the illustrious engineer-in-chief. The missing dividend, promised in last October, possibly will now be divided among them; in such case the remaining shares cannot fail to obtain premium, or at least, as much as they are worth. The deed once signed, the shareholders may obtain a knowledge of their liabilities, though they remain ignorant of the site of their "El Dorado."

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state that the market for mining shares remains without much animation, but if anything there is a slight improvement rather than the reverse. Tremaynes keep pretty steady; Wellingtons might be bought below 61s.; Alfreds, buyers 14s., sellers 15s.; St. Aubyn and Grylls, sellers 5s.; Trannack, sellers 8s.

IMMENSE COAL BED IN AMERICA.—A correspondent has forwarded an account of a wonderful deposit of mineral at Straitsville, Ohio, which is said to exceed anything of the kind discovered in the world. He writes,—"Reports of an immense structure of coal in the vicinity of this place have long been circulated in Central Ohio. I first heard of it in the winter of 1838-9; it was then reported to be about 90 feet thick. Further examinations ascertained the thickness of the uncovered part, in the face of a deep ravine, at 112 ft. A few days since a gentleman of high standing informed me that an acquaintance of his, with some others, had stripped the upper surface of the bed, and bored through the coal stratum, to ascertain its thickness, and found it to be 138 ft. About 10 miles south of that mine, I found a vein of carbonate of iron implanted similar to a silty structure, with an easy cleavage, which is full of well-preserved leaves of the coal formation. Some of them on breaking open, exhibit the green of the leaf. The ore, by analysis of Professor Rodgers, contains 44 per cent. of iron."

ARIGNA IRON AND COAL COMPANY.—Mr. Frank Gibson, of Westmoreland place, City-road, has petitioned the Vice-Chancellor that this company may be finally wound up, under the arrangements of the Winding-up Act. He states that the capital of the company was to have been 300,000/ in 50s. shares. After a large expenditure great losses were incurred; the directors sold the whole of the mines, since which others had been appointed, and there was at present invested in Three per Cent. Bank Annuities, in the Bank of England, in the names of trustees the sum of 11,034s. 9s. 7d. There are about 50 shareholders, and the petitioner holds 50 shares.

A new forge and rolling mill are about to be erected at Ystalyfera, and preparations are now making for the commencement of the works.

THE ABERDARE IRON COMPANY AND THE CRYSTAL PALACE.—The great iron girders of the transept of this magnificent building were manufactured at the Aberdare Iron Company's works, which are now under the active superintendence of Richard Fothergill, Esq. They are perhaps fine specimens of "hammered iron" as have ever yet been produced.—*Swansea Herald*.

SUPPLY OF COAL TO THE GREAT WESTERN RAILWAY.—We are happy to state that John Calvert, Esq., has again obtained the contract for the supply of coals to the Great Western Railway Company. But for the strenuous exertions of Mr. Calvert to obtain the contract, numbers of workmen must have been out of employment, as the supply of coals required by the company amounts to from 300 to 400 tons per day.—*Swansea Herald*.

BLACK DIAMOND.—A remarkable contribution has just been made to the collection in Hyde Park—an immense black diamond, in the rough state, from Bahia, contributed by Mr. J. Mayer, of Liverpool, so hard that it has hitherto defied the lapidaries to polish it, and weighing 350 carats.

CHLOROFORM A PROPELLING POWER.—Experiments with chloroform as a propelling power, in the place of steam, are now making in the port of Lorient; and there is reason to hope, from the success which has already attended them, that they will result in causing a considerable saving to be effected in cost and in space.—*Galignani*.

IRON PLATES FOR PLATE-GLASS.—At the manufactory of Messrs. Hawks, Crawshaw, and Sons, a large cast-iron plate has been made, weighing about 20 tons: it is for the enterprising firm of R. W. Swiaburne and Co., plate-glass manufacturers, Newcastle. A larger plate is now in hand for the same firm, which will have a planed surface 18 feet 4 inches long by 10 feet 10 inches wide, and will weigh 25 tons: this will be, we believe, the largest cast-iron plate ever made for a plate-glass casting table. Both plates will be planed perfectly smooth on the surface in a large planing machine.—*Gateshead Observer*.

LEAD ORES

TICKETINGS FOR ABOUT 100 TONS NEWTONARD LEAD ORE.

Bidders.	Douglas, Isle of Man, 25th June.	Price per Ton.
Newton, Keats, and Co. (purchasers)	10	5 6
Tamar Smelting Company	9	18 0
Thomas Somers	8	6 6
Sims, Willyams, Nevil, and Co.	9	16 6
Walker, Parker, and Co.	10	1 6
Pontifex and Wood	8	8 0
Locke, Blackett, and Co.	9	10 0

Ticketings at the King's Head Hotel, Holywell, on the 26th June.

Mine.	Tons.	Price per Ton.	Purchaser.

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VAUX HALL.—LICENSED VICTUALLER'S FANCY FAIRS.—On MONDAY, and TUESDAY, in aid of the Funds of the Licensed Victualler's Asylum, upon which occasions, in addition to the Inimitable Entertainments of this Aristocratical Resort, there will be a BALLOON ASCENT on each day, by Mr. H. BELL; on Monday, in a NEW BALLOON, constructed for Scientific Purposes, being the First Ascent, and on Tuesday, in the NEW LOCOMOTIVE AERIAL MACHINE. First Appearance of Madame Antonio, the celebrated Rope Acrobatic, and the eminent Tyrolean Vocalist, M. Von Gulpin, in Native Costume, who has had the honour of appearing twice before Her Majesty at Buckingham Palace. The Performances, which will be considerably increased, will include the Four Greatest Equestrians in the World, Mad. Lejars, Madle. Pauline Cugent, Madle. Palmyra Annato, and Hernandez.—Foucault's Marvelous Fire and Water Sports.—Unequalled Fireworks by Darby.—Gorgeous Illuminations—Arban's Splendid Band for Concert and Ball.—Popular Vocalists.—Stupendous Picture, the "Temple of Concord."—The Ball Room will be open at an early hour, and Two Extra Bands engaged.—Doors open at Five. Admission, 2s. 6d.

VAUX HALL.—NOCTURNAL FLOWER SHOW, OF TUESDAY, JULY 4th.—A Flower Show will take place in the Royal Gardens, on a scale of Illuminated Magnificence never yet attempted. The whole of the FLORAL DISPLAY will be Brilliantly Lighted, presenting a coup d'œil as magnificent as it will be novel. Admission, 2s. 6d.—The usual Entertainments of the evening will take place in their ordinary routine.—On WEDNESDAY, JULY 9th, a GRAND BAL COSTUME and MASQUERADE, in honour of Her Majesty's visit to the City, upon the same extensive scale of splendour which characterised the last, and which attracted upwards of 8000 persons. Admission, Gentlemen's Tickets, 10s.; Ladies' ditto, 5s. Doors open at Ten. Mr. J. Nathan, Castle-street, Leicester-square, is appointed Costumer.

NOTICES TO CORRESPONDENTS.

C. F. (Cornhill).—The Alten Mines are situated in Norwegian Fjord (vulgo, Lapland). The formation of the rocks is primary, there are no indications of volcanic structure. The Geysers, or boiling springs, exist in Iceland; they are jets of water, not fire, as some ignorantly suppose.

ELECTRO-MAGNETISM AS A MOTIVE-POWER—**W. S.**—We have received the communications forwarded, but there is nothing new in the article in question—little, indeed, but what has already appeared in the *Mining Journal*. It is likely Professor Henry, of the Smithsonian Institution, United States, was the first who constructed and publicly described a machine, the motive-power of which was obtained from the magnetization of soft iron; its motion was reciprocating, and was described in *Silliman's Journal* in the year 1831. In 1833, Dr. Schultze, of Zurich, exhibited a machine propelled by electro-magnetism; also Dr. Ritchie, of London. In 1834, Professor Jacobi, of St. Petersburg, described in Paris a method of propelling by similar power. Then followed Davenport, of Vermont, and Davidson, of Edinburgh, who had a turning lathe and small locomotive in operation by the same power, which was exhibited in 1843 at the Egyptian Hall. Professor Page, of Washington, comes next, and undoubtedly the late experiment with an electro-magnetic locomotive at that city is the greatest effort yet made. But great expense, producing little power, has beaten all; and unless some means of producing currents of motive force totally different to all existing arrangements are discovered, we are not likely to look for the supercession of the employment of steam by it. One grain of zinc consumed in a galvanic battery of the most powerful, yet economic description, will lift 60 lbs. 1 ft. high per minute, while one grain of zinc consumed in the furnace of a Cornish boiler lifts 143 lbs. 1 ft. high per minute. The electric scientific world are now turning much attention to magneto-electricity, and there appears good reason to anticipate some great discovery in this department of the science. Already have Messrs. Elkington (as stated in the *Mining Journal* of the 14th inst.) set aside all their unwieldy, expensive, and inconstant batteries, and are now employing an induced current, with immenseness success and saving, from permanent magnets, in gilding and plating processes. Some information also appears in another column.

J. T. T. (Methermore).—We have received a communication from the President of the College of Arts and Mines at the above place, respecting the advertisement for a manager for lead mines in North Wales, in our last Journal. The writer states his conviction that no one individual, or "model captain," will be found among the usual characters of managers who can pass the ordeal there laid down: he says he has been acquainted with the principal mine agents in Cornwall and Devon for the last 27 years, and can say, without fear of contradiction, that he has never known one equal to the standard there set up. He is acquainted with two managers, who possess a practical knowledge of mining, surveying, accounts, and mechanics, and another who adds a practical knowledge of assaying; but he thinks, even if their talent was sufficient, they would be above the market price.

G. B. (Leadenhall-street).—The plan for railway communication in Bengal, as proposed by Mr. Andrew, and now sanctioned by the Indian Railway Commissioners, is from Calcutta to Itajmahr, a distance of 180 miles, and thence by steam navigation on the Ganges to Mirzapore, instead of 450 miles of line carried out at once. Intermediate portions might be completed by degrees, where the navigation was the most obstructed, as between Benares and Allahabad, and from the latter place to Cawnpore. As traffic increased, the whole might in time be finished.

MINING IN ST. AGNES.—**Verax** complains of a system of scheming to which he has been exposed, and by which, after the expenditure of much time and money, he has been completely victimised. He states that, being applied to some months since to assist in the formation of a company for trying a new piece of ground to the east of Great Wheal Kitty, he interested himself in establishing a company for working the ground in a legitimate manner, relying on the sincerity and honour of the parties, and it was decided to take up the lease. Being at a respectable inn somewhat west of Truro, he got into conversation with a person respecting the sett, informing him he could have an interest in it if he liked, at which he seemed pleased. Thus matters stood, and "Verax" saw no more of this would be mine agent until his return from London, where he had been among some mining parties to endeavour to get up a company to work this very sett, and on seeing one of the owners he was surprised to hear this new upstart "was the man they wanted, for he had got a good party for them." "Verax," of course, feels excessively hurt at such treatment, after surveying the parish for the publication of a mineralogical map, showing the various sets, lodes, &c. It is satisfactory, however, to find that he had secured the patronage of the leading and honourable mine agents and other gentlemen of the place for this purpose; but he considers the treatment he has received so base that he leaves the district in disgust.

W. (Lanwithiel).—The matter has not escaped us. We are fully acquainted with all the facts; but we still hope that better sense will prevail, in preventing the particulars coming before the public.

Cato's remarks on the character of mining reports in general, and on the correspondence on mining matters which weekly appear in our columns, may, for ought we know to the contrary, be very sensible, and much to the purpose, but unfortunately we can only read about one half his lucubration, and that half to us is perfectly unintelligible. If our correspondent wishes us to insert any of his remarks, and we are always ready to adopt matter worthy of publication, he must address us in plain English, and convey such dictation in a hand-writing which can be deciphered.

SEARS'S PATENT NEEDLE GUN.—Sir: In your notice of the experiments with fire arms which took place at Lord Ranleigh's, Mulgrave House, Fulham, I perceive that your reporter has made a trifling error. He states that my gun, after 15 or 20 rounds, became unmanageable. I, therefore, beg to say that 80 rounds were fired from one gun, and that the first seven shots were fired in the short space of one minute. The gun, after the 80th shot, was in every respect free, manageable, and clean as after the first shot, as witnessed by all the gentlemen present. Your correction of the error will oblige. M. N. SEARS: *Burton Crescent, June 26.*

The offer of "An Adventurer" (Truro) is accepted, with thanks. We are at all times anxious for information.

C. P. C.—Of cobalt there are eight species—viz., tin white ore, grey, silver white, black, brown, yellow, and red, as well as cobalt pyrites. It was the first named species that was raised in some quantities about 30 years ago at Wheal Sparnon, Redruth, and Dolcoath Mine, realising then a high price; the latter mine and Herlant yielded also grey; red has also been found at Dolcoath.

Mr. J. Y. Watson's "Compendium of British Mining" will be resumed next week—the mines being the North Pool and West Tolegus.

Mr. Ennor's letter on the Mining Exchange; the reply of "A Practical Miner" to Mr. Ennor on Tin Mines; "A Well-Wisher" on Mining in Ireland; "An Engineer" on Mine Machinery; &c., are unavoidably postponed.

The Cost-Book System.

Having repeated applications for particulars respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6d.

* * * We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

* * * It is particularly requested that all communications may be addressed—
TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JUNE 28, 1851.

The *Mining Journal* is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all newsagents, at the Royal Exchange, and other parts of London.

One of the most extraordinary cases of preservation from loss of life by being buried alive in a coal-pit, which we have this day to record, among other accidents in another column, took place yesterday week, at the North Side Colliery, Bedminster, near Bristol, and is suggestive of the immense importance which attaches to a colliery viewer in a constant watchfulness of every part of the workings, not only for ventilation, but for support of roofs, and particularly the strength and security of the shaft timbering. In the case under notice, a load of coal, on ascending the shaft, struck one of the timbers at 90 fms. from surface and dislodged it from its place; a quantity of earth work followed, falling on the lower timbers, and thus filling up the opening for 30 fms. below, and not only causing a destruction of much property, but immolating alive 40 of our fellow-creatures. Now, without knowing any more than this mere fact, it would strike us that the timbering of this shaft must have been anything but secure; the

striking of the bucket against the sides of the shaft, from those oscillations which cannot be avoided where guide rods are not provided, is a thing of such every-day occurrence that all known means of security should be resorted to enable such shocks to be withstood. It is true that, among the various colliery accidents which it is our painful duty so continually to record, such an occurrence as the present one is rare, but should, nevertheless, be a serious warning and a useful lesson to all persons having the management of colliery and mining property. Mr. GOULDSTONE, the principal proprietor of the colliery, was on the spot immediately on the occurrence of the accident being known; no expense or exertion was spared towards the extrication of the men inhumanely, and by 4 o'clock in the afternoon some kind of communication was made with the two men in the upper vein. It now became necessary that some one should descend to convey a rope to them; but most of the colliers present naturally shrank from the danger which it was evident attended the exploit. At length, however, a brave fellow, named NORTH, volunteered for the service; a few minutes after his descent the bottom signal was heard, the windlass was slowly and cautiously set to work, and in a short time BRAINE and PHILLIPS, with their brave deliverer NORTH, were seen to emerge as it were from the grave, when the air resounded with plaudits on the conduct of the latter; the two men were much exhausted from having been so many hours in a deleterious atmosphere, but on stimulants being applied they soon recovered. Having now gained access to the upper vein, the best means were canvassed for reaching the lower seam, 15 fms. deeper; the air at the tip, descending to the lower vein, was so foul that candles were useless, and the only means left were for a windlass to be taken down, fixed in the dark, and for one man to be let down to the lower seam and call or grope for the missing men. The intrepid NORTH again volunteered for this latter service, and five others, T. and W. SMITH, S. PAGE, W. COOPER, and R. PIKE, offered to descend and work the windlass. They accordingly descended with all necessary apparatus, but found the air so bad, and so much danger from the still falling rubbish, that they returned, stating it was impossible to proceed until further repairs took place. A canvas air shaft was constructed, and by means of several hundred yards of hose from the Bristol Insurance Offices, a stream of pure atmosphere was forced into the lower workings, while the necessary repairs were done to the shaft. Several hours were thus employed. By 11 o'clock on Saturday morning everything was announced ready; NORTH and his coadjutors again descended, and by 7 o'clock on Saturday evening the whole 38 men, whom in the morning no one ever expected again to see alive, were landed safe, to the astonishment and joy of their relatives and the spectators. During the operations several acts of real heroism might be noticed: when NORTH and his companions, who were thoroughly exhausted, had brought up 20 men, and after it was considered useless and dangerous to proceed any further, FRANCIS SMITH, one of them, and who had suffered less than the others, determined to persevere, and with the assistance of men named DAVIES, BOLT, WATSON, BATSON, JOY, MARSTON, and PAGE, succeeded in safely restoring the 18 remaining men: but a few hours more, and the whole must have perished. Such conduct as this, which, indeed, is a marked feature in the characteristics of our colliery and mining population, is above all praise, and we trust will not be allowed to pass without some substantial reward, in addition to that self-congratulation which must rest with them throughout life, in having been instrumental in saving the lives of such a number of their fellow-creatures.

A more leisurely investigation of the mischief caused by the accident has since been made, and it is satisfactorily ascertained that the damage to the shaft is not so great in extent as was at first imagined, and we understand there is every probability of the works being resumed within the ensuing fortnight. We have received a communication from our intelligent correspondent at Bristol ("Carbon"), in which he accounts for the accident by the continuous rebounding of the corve from side to side having loosened the strata behind the deal facings, during four years' working, until they received a greater pressure than usual, and a heavy blow would then loosen a frame piece, and the destruction was complete.

The bill which has been for a considerable time under preparation for the definition and amendment of the mineral laws of Derbyshire has, at length, been printed, of which a copy is now before us. It is intituled "An Act to define and amend the mineral customs of certain parts of the hundred of High Peak, in the county of Derby, part of the possessions of her MAJESTY's Duchy of Lancaster; to make provision for the better administration of justice in the Barmote Courts therein, and to improve the practice and proceedings of the said courts." In the recitation of the preamble, it is shown that the QUEEN is possessed of the hundred of High Peak, and is entitled to the mineral duties in certain parts of such hundred; that there is a part called the King's Field, or Fee, consisting of seven smaller liberties or districts—Castleton, Bradwell, Hucklow, Winster, Moneyash, Taddington, and Upper Haddon. That all subjects of the realm have from time immemorial had or claimed the right to search for minerals, subject to certain ancient laws and customs, and on paying certain duties to the Crown and its lessees; that for the regulation of such mines, and other matters relating thereto, there have existed courts called Barmote Courts; that such mineral laws and customs are uncertain and undefined, and in many respects inapplicable to present mining operations; that doubts have arisen whether the jurisdiction of the courts extend over such part of the Peak to which her MAJESTY is entitled to mineral duties as are not included in the King's Field; that it is desirable that the said mineral laws should be revised, altered, and abandoned, and the jurisdiction of the Barmote Courts more definitely settled. The Duke of DEVONSHIRE is stated to be the lessee of the duties under the Great Seal; and the principal provisions of the bill are the appointment of a steward, who must be a barrister of five years, a special pleader of ten, or an attorney of seven years' standing; his duties are defined, and the practice of issuing precepts, subpoenas, warrants, &c. Two great Barmote Courts are to be held in April and Oct.; and small courts at occasion may require. The business of the great courts to be swearing in of the grand jury, and such other matters as is in the bill mentioned; and of the small courts to try actions of title, trespass, debt, &c. A barmaster is to be appointed during pleasure under seal of the Duchy; and he may nominate seven deputies. The courts are to be courts of record, and the jurisdiction to extend over the King's Field, and all parts of the hundred of High Peak where the QUEEN is entitled to mineral duties. The grand jury to consist of 12 men, with a knowledge of mining, to be chosen by the barmaster—Castleton, two; Bradwell, two; Hucklow, one; Winster, two; Moneyash, two; Taddington, one; Upper Haddon, one; and one from such parts not within the liberties. Six are to be determined by lot, to be discharged at the second great Barmote Court, after passing of the Act; and at every subsequent court the six longest in office to be discharged. None to serve oftener than once in three years. In case of death, barmaster to select another. There are various other provisions as to viewing of mines, pendings, granting new trials, executions against mineral property, penalties, with proceedings relative to their recovery, tables of fees, &c.

It is rather difficult to say upon what precise grounds it is intended to rest the motion for an inquiry into the particular methods which have been adopted for the suppression of the piratical activity of the Dyacks of Borneo. There are three alternative propositions which may be submitted to the House of Commons, or, by possibility, the mover may take the whole three together, and putting them into his cauldron, and adding the heated incantations which he is able to utter, turn out from his furnace a very stringent and drastic preparation. He may allege, first, that in this case there was no actual piracy—that the Dyacks, as aborigines of the Malayan seas, only acted with that primitive independence, with that prescriptive sovereignty in their own latitudes, to which they were naturally entitled. Or, secondly, he may affirm that we have no right to turn schoolmasters on the high seas, and force our notions of individual and separate rights upon these chartered freebooters. Or, thirdly, that if there had been actual piracy, and that according to all law, whether local or international, we were justified in taking measures to suppress it, we have proceeded too far, and administered an unnecessary sum of punishment on the evil doers. It is anything but improbable that one or the other, or probably the whole, of these points may be pressed on the attention of the Legislature, and a vain attempt made to obtain an affirmative vote on these propositions separately or together; and we make no doubt that such a motion, limping up and down the House upon these crutches, will receive a full and triumphant answer, and then a summary rejection.

The first of these assumed facts may be very promptly disposed of on the recorded testimony of the numerous Dutch officers who have from time to time acted as governors of the adjacent islands, and spent a long period as residents in those seas; or on that of our naval commanders, who have often, and under great provocation, been sent to punish some outrage more aggravated, and to disperse some array of force more formidable than ordinarily accompanied the savage expeditions of the Dyacks. These all know and declare emphatically the robber tendencies and piratical life of this sea-going offshoot of the Malayan race. But, then, it may be said in extenuation, that these statements are ever so true, it is a piece of mere Quixotism to interfere by arms with what is so distant from us, so limited in its extent, and so inevitably and inextricably a part of the history of the race itself. We earnestly hope that, by making a great example on a great occasion, and by the substitution gradually of a remunerative commerce for the temporary fruits of rapine, we may win even the Dyacks to a less predatory and a more useful course of activity than that which has been hitherto set against their name in every authentic history. But if they will not be softened by the exhortations of reason, nor subdued by the force of a declared law which ought to terrify them, then there remains to us only a third alternative—of clearing them out of those seas which they have long been permitted to infest. For our own parts—and we think we may take upon us to answer for a large portion, if not for the majority, of the out-of-door public—we think that it is wiser and safer to leave the specific measures by which permanent anarchy or a transient outbreak is to be suppressed to the Government resident on the spot, instructed better than we in England ever can be, by its local knowledge of the necessary and expedient elements of the case.

We should leave also—and we believe the public in general is disposed to leave—the particular remedy to the judgment of the QUEEN's representative. Having carefully chosen our officer, and in this instance who does not know that he has been chosen carefully and well, we should commit to his judgment and conscience the free choice of measures for the right discharge of his duties; nor is it not fitting that a man of honour and character should be called from the ends of the earth, even at the instance of Mr. HUMPHREY, to assist in the disproof of a gratuitous imputation, or in discovering an empty mare's nest.

A case of considerable importance to inventors and patentees has been argued in the Court of Common Pleas, and which furnishes another among the many instances on record on what slight pretences and mean evasions a man's patent right may be attempted to be wrested from him, in too many instances with success. The plaintiff was Mr. JAMES LYNE HANCOCK, the well-known manufacturer of India-rubber, who, in connection with Messrs. MACKINTOSH, of Manchester, have taken out so many patents for waterproof and other fabrics, and particularly one for what is termed "vulcanising" caoutchouc, or treating it with sulphur; the defendants were Messrs. SOMERSET and Co., dealers in goloshes, and other waterproof articles, of Noble-street, Cheapside; and the action was for the infringement of a patent for improvements in the manufacture of India-rubber in combination with other substances, for rendering cloth and other fabrics waterproof. Sir F. THIESIGER, for the plaintiff, said he had for some years, in connection with Messrs. MACKINTOSH, been engaged in experimenting on the application of caoutchouc to various purposes, particularly to rendering garments waterproof; and for several years they could not overcome certain defects, principally a clamminess, and also a liability to be affected by heat or oily substances. At length Mr. HANCOCK discovered that, by first preparing sheets of caoutchouc with a silicate of magnesia, and then immersing them in melted sulphur at about 250° Fahr., allowing them to remain until the temperature rose to 270° or 285°, every object was obtained which could be desired. Previous to this a Mr. MOULTON came to England as agent to Mr. GOODYEAR, of New York, and wished to treat with Messrs. MACKINTOSH for the sale of articles patented in America, but not in England, which were free from all clamminess, or other disadvantages. The negotiations were, however, broken off, and on the 21st Nov., 1843, Mr. HANCOCK took out a patent for his discovery with respect to treating caoutchouc with sulphur as the principal specification stated.

What I claim as my invention and discovery is, first, the combination of caoutchouc with silicate of magnesia, whereby manufactured caoutchouc is rendered free from the clammy and adhesive character which it usually possesses; secondly, I claim the mode herein described of combining asphalt with caoutchouc; and, thirdly, I claim the heating of caoutchouc (either alone or in combination with silicate of magnesia or other substances) with sulphur, when acted on by heat, and thus changing the character of caoutchouc, as herein described.

This preparation of Mr. HANCOCK's soon came into general use under the name of vulcanised India-rubber, and shortly after parties imported largely into this country goods from America of a similar manufacture, which were publicly sold.

On the 5th October, 1848, a letter was sent to defendants, giving them notice that if they continued the sale of such articles proceedings would be commenced against them. This was disregarded, and a person was sent to defendant's premises, who purchased articles to the amount of 12. 3s. 6d., which were analysed, and found to be prepared with sulphur and oxide of lead.

The ATTORNEY-GENERAL supported the case for the defendants, on the ground that the oxide of lead rendered the fabric more compact and more susceptible of polish, and that thus it became a totally different article; he did not, however, attempt to introduce any remarks on the effect of the sulphur. Mr. JUSTICE WILLIAMS, in summing up, left three points for the consideration of the jury—First, whether the fact of the defendants having sold the article manufactured by Mr. GOODYEAR was an infringement on plaintiff's patent right? Secondly, was the plaintiff's invention a novelty when he obtained his patent? The third was whether plaintiff had completed his invention when he enrolled his specification, for if he had not, Mr. GOODYEAR's patent taken out in England a month after would have priority? The jury, after an absence of a quarter of an hour, found—First, there was an infringement of the patent. Secondly, that Mr. Hancock's was a new invention. Thirdly, that the plaintiff had completed his invention before the enrolment of the specification, which, of course, amounted to an entire verdict for the plaintiff. His lordship directed no nominal damages for 40s., the plaintiff's object being only to prevent further infringement, and secure his right.

In the Journal of the 14th inst., we published an article descriptive of Messrs. ELKINGTON and MASON's process of electro-plating, and their improved mode of producing the electric fluid by means of a magneto-electric machine, which has superseded the galvanic battery, and at the same time, in a separate article, called the attention of our readers to this important fact, because it removes the principal objection which has been made against the application of electro-magnetism as a motive-power. From observations which have since been made on this subject, it appears that many suppose that an electro-magnetic engine, worked by a dry battery, would produce something like perpetual motion, because the motion of the one machine would apparently be produced by the other, without consumption of any material. If a steel magnet could be made permanently magnetic for any length of time, this supposition would be right; but it can only be considered permanent for a certain time, and requires, therefore, to be recharged when exhausted. This process, which was formerly made by means of steel magnets, is now effected by powerful electro-magnets being charged by galvanic batteries, when the permanent or steel magnets require

We willingly admit the necessity of the application of such a power; but this power is so trifling that a man easily will be able, at the least for a short time, to work or revolve an armature of immense size, until the electro-magnetic engine is put in motion; and the engineer wants, therefore, only to revolve the armature of a magneto-electric machine, instead of moving the levers of a steam-engine, for the purpose of starting it; and when put in motion, the motion of the armatures will then require much less power than the pumps of a steam-engine, which best will be seen from the facility with which the armatures in Mr. HENLEY's magneto-electric machines are revolved.

We expressed, in a previous article, our satisfaction at the prospect of seeing electricity made more useful for practical purposes, since the galvanic battery has become superseded by Messrs. HENLEY's, and ELKINGTON and MASON's magneto-electric arrangements, by which the electric fluid is produced in an inexpensive manner, which allows its application in many cases where the costliness and uncertainty by the galvanic battery made it almost impracticable. We have since learned that several railway companies intend to apply Mr. HENLEY's telegraph for giving signals in tunnels, to which it is so well applicable, and have applied to him for this purpose. When we consider what awful accidents have lately occurred on railways, especially in tunnels, and merely from want of signals, it must certainly be very satisfactory to the travelling public to learn that measures are contemplated which must, in a great measure, prevent such calamities in future.

The last sale for the current quarter, terminating on Monday next, of foreign and other copper ores by ticketing at Swansea, having taken place on Tuesday last, we proceed to give our usual quarterly summary of the same, which will be followed up in our next Journal by returns of the sales by ticketing in Cornwall, and those of Lead and Tin, to such extent as we have been able to obtain them. The total amount sold at Swansea has been 12,515 tons, realising 147,391. 2s. 6d., and as compared with the previous quarter the result is as follows:—

	Tons.	Amount.	Avg. Price.
Quarter ended June 30, 1851	12,515	£147,391 2 6	£11 15 6
" March 31, 1851	8,898	109,946 12 6	12 7 1
Increase	3617	37,444 10 0	Dec. 10 11 7

Being an increase of 3617 tons, and 37,444. 10s. in amount, but a decrease on the average price of 11s. 7d. per ton. With the corresponding quarter of 1850, the comparison stands thus:—

	Tons.	Amount.	Avg. Price.
Quarter ended June 30, 1851	12,515	£147,391 2 6	£11 15 6
" June 30, 1850	11,290	129,104 16 6	11 8 8
Increase	1,225	£18,286 6 0	£0 6 10

Being an increase of 1225 tons—18,286. 6s. in money, and 6s. 10d. per ton in price.

The above amount of ores were made up as follows:—

	Tons.	Amount.	Average Price.
Foreign	7922	£116,980 17 0	£14 15 4
Irish, &c.	4475	29,611 16 0	6 15 3
Sundry slags, &c.	215	798 9 6	3 13 8
Total	Tons 12,515	£147,391 2 6	£11 15 6

The amount of foreign ores were made up as follows:—

	Tons.	Amount.	Average Price.
Cobre	5497	£82,170 13 0	£14 19 0
Cuba	1010	13,370 14 0	13 4 9
South Australia	498	12,231 10 0	24 14 2
Santiago	356	3,976 3 0	11 3 4
New Zealand	265	2,876 9 6	10 17 0
Spanish	278	1,754 15 6	6 7 9
Chili	21	600 12 0	28 11 5
Total	Tons 7922	£116,980 17 0	£14 15 4

And the Irish, &c., were as follows:—

	Tons.	Amount.	Average Price.
Berehaven	2488	£18,513 17 0	£7 8 9
Knockmahan	1731	10,275 4 6	5 18 0
Aberdovey	65	375 2 6	5 15 6
Lucknow	42	213 3 0	5 1 0
Daren	28	128 16 0	5 12 3
Cronebane	3	76 11 6	38 5 9
Tigray	3	76 11 6	38 5 9
Manz	23	12 10 0	0 10 10
Total	Tons 4378	£29,611 16 0	£6 15 3

It is an exceedingly unenviable position for a mechanical engineer to be placed in, when applied to by some novice, with generally more money than wit, to construct him a monstrous and unmechanical piece of machinery, which, according to the brainless ideas of its would-be inventor, is to effect a complete revolution in some peculiar art or principle, while the party applied to is well satisfied that it cannot work at all. If he refuses, on grounds of honest principle, he is set down as unequal to his profession; and if he undertakes it, he does so with a sort of consciousness he is not doing justice. We have practically known engineers placed in this dilemma; and when undertaken the only way is to bind themselves to make the model according to drawing, but not to answer for the working. A case, which has given rise to these observations, was tried in the Court of Queen's Bench, on Tuesday last, in which Mr. CLARK, the engineer of Temple-street, Whitefriars, was the plaintiff, and one BRICE, from Trinidad, defendant, who, having some scheme in his head for employing air instead of steam as a motive-power, came to England, and applied to plaintiff to construct him a model for the Exhibition. The action was brought to recover 321., the balance of the account. The model was made by plaintiff under the superintendence of the defendant, and in the course of its construction it underwent numerous alterations; but when it was at last completed and a trial made, it was found that it only went for five minutes, when it came to a dead stop. On being examined a crack was discovered, and this being repaired, and some other alterations made, it was again submitted to trial, but it would not go at all. Under these circumstances, the plaintiff insisted upon further advances of money being made, and not finding it forthcoming, he brought this action.

The defence was that the machine was badly constructed, while plaintiff insisted it was throughout altered, added to, and diminished, under defendant's particular directions; but the latter was so elated by what he called his "discovery," that in a prospectus which he issued he appended some poetry, thanking God for it. At the suggestion of one counsel, with the concurrence of the other, and with the advice of Lord CAMPBELL, the case was referred to arbitration. From the very nature of the proposed "discovery," a mode of employing air to supersede steam as a motive-power, and the enthusiasm of the inventor by appealing to a higher power, we think there needs no "ghost" to tell us where the fault or the folly lies. We shall await the decision.

We have so often pointed out the favourable field for mining in our sister country, Ireland, that words are wanting when we newly have to touch upon the theme, as on the present occasion. In another column of our paper this day will be found particulars of the first general meeting of the shareholders in the KENMARE AND WEST OF IRELAND COPPER AND SILVER-LEAD MINING COMPANY. The mines are situate in the county of Kerry, and have been inspected by Capt. W. PAUL, sent by Messrs. JOHN TAYLOR and SONS, and more recently by Capt. W. HOSKIN, on his return from Cobre. The reports from both have undergone our inspection, and we are bound to admit them to be of the highest favourable character; the large specimens of grey and other copper ore open for the inspection of the meeting also testify as to the rich character and quality of the metal; and as the shares, 20,000, at 12s. each, have all been distributed, and are held, with the exception of 390 (reserved), by parties of the highest respectability, there can be no reason to doubt but that the mines will now be wrought effectually. In addition to other local advantages the distance to the shipping port is only three miles, over a good road—the ore can, therefore, be put on board at an expense of about 2s. 6d. per ton. The deepest level is only 36 fms., the engine-shaft being

nearly down to another level. Croker's shaft is down to the 36, and sunk about 5 fms. below, above which level, and principally from the 24 fm. level, 10,000. worth of ore was sold at an average of 12s. per ton. The distance between the lodes are from the engine-shaft, sunk perpendicularly near the north lode, to Forge lode about 100 fms.; from that to the lead lode about 22 fms.; and thence to the south lode, at Manby's shaft, about 200 fathoms. The lode is nearly 1½ ft. wide, underlaying south 2 ft. in a fathom in the bottom level, which is more than it does in those above; and the lode improves as it deepens. Forge lode has been wrought to the depth of 24 fathoms from the surface, and the working upon it extended 100 fathoms in length. About 22 degrees south is a lead lode, which can be intersected by driving a cross-cut from this level—the ground being easy—at a moderate expense. Further south is a large copper lode, underlaying 2½ ft. in a fathom. The strata at present is limestone; but the clay-slate is bordering on the south, and its declination is north 45° in a fathom. A perpendicular shaft is here recommended, to intersect the lode at 30 fathoms deep. There is ample water-power for working this effectually. At the Pump shaft, one of WEST's best 36-in. cylinder steam-engines is erected, and all the necessary pitwork upon the spot, to work the mine to the deeper levels. The water is already in fork. Labourers are plentiful, wages cheap, and a more peaceable population is not to be found in any part of the kingdom. All this is testified by Capt. W. THOMAS, the superintendent, who has known the locality as a resident for upwards of 10 years. Coals are delivered into the mine at 20s. per ton: 5000. is the sum paid for the property, including engine, machinery, and effects (valued beyond 3000. by Capt. THOMAS), and subject to a royalty of 1-15th—the company to have the option at any time within 12 months to purchase at a fixed fine.

The reports being highly satisfactory, and the recent visit of the directors confirming the estimate made of this property becoming a vast and valuable field for mining operations, they already entertain the idea of effecting the purchase named; and as they have thus commenced in the true spirit of mining—that of perseverance, backed with ample capital—we sincerely wish them deserved success.

Sir WILLIAM SOMERVILLE's bill, to provide greater facilities for owners or lessees of mines in Ireland, to prosecute their works in adjoining lands, has just been printed, a copy of which is before us. It goes but one step, however, in the removal of those obstacles for the extraction of the mineral wealth beneath the surface for which Ireland, in juxtaposition with every other country in Europe, is so remarkable. In our last Number we noticed that the principal facility to be given would be power to the lessee or owner of a mine in Ireland, on giving certain notice and security to the occupier of the land, to enter on and occupy such portion as may be required. Such is literally the fact, and the quantity of land thus required is limited to five acres!—an enormous provision for the extension of mining operations of any amount. It provides that if the owner of any mines, situate on other lands (we presume it means when the lodes run through lands adjoining any set), shall be desirous of entering on such lands, it shall be lawful to serve upon the occupying tenant a written notice accordingly; and after eight days, having obtained a certificate from a competent engineer or county surveyor, stating the particulars and quantities of land, and an estimate of the value thereof, he may lodge the amount in the hands of the Clerk of the Peace, or his deputy, on payment of a fee of 2s., when he will be liberty to enter upon and use such land without let or hindrance.

The tenant, or sub-lessee, may recover his damages out of such deposit on giving eight days' notice by a traverse for damages at the assizes, in like manner, as near as may be, as traverses for damages in cases of grand jury presentations have been heretofore tried. The Act does not extend to mines demised with lands, nor to ground on which buildings are erected, gardens or yards. Now, if Sir WILLIAM SOMERVILLE had felt anxious to remove some of the *incubi* with which the industry of Ireland is proscribed, by legislating for the removal of many obstructions in, and giving greater facilities for extending mining operations, a wide field was before him; and he might have introduced a bill for rendering mineral wealth as accessible as in Cornwall—breaking down some of the degrading legal barriers to improvement which have been Ireland's curse for centuries; opened out a vast field of employment for the population; rendered his name famous as the ameliorator of the condition of his countrymen, and saved the time of Parliament in legislating on such an abortion as the bill now before us, at which, we have no doubt, the "Irish brigade" and other Members will have some pretended reasons to cavil. The present bill, if passed, may be of some partial good in isolated cases; but we should have rejoiced to have seen a bolder measure, based on broader principles, and one which would have rendered mining operations in Ireland popular and prosperous—neither of which can they be said to be at present.

Another case of attempting to recover wages a second time was brought forward at the Aberdare Petty Sessions, on Thursday last, before Messrs. H. A. BRUCE, G. R. MORGAN, and W. THOMAS. Three men preferred a charge against JOHN SMITH, one of the agents of the Aberdare Iron Company, for refusing to pay wages amounting to about 30. Mr. FRANK JAMES appeared on the part of the complainants, and Mr. E. B. EDWARDS for the defendant. Upon the case being called on, Mr. EDWARDS said that he could not conceive that the magistrates were aware that this was part of the case withdrawn by Mr. JAMES on a former occasion, and that it now certainly presented itself in the shape of a persecution, and an entire breach of good faith. That there was an amount of wages due to the men of 62., which the company had offered them upon signing a simple receipt. Mr. JAMES remarked, that the company had refused an account of the work, which Mr. EDWARDS denied, and the agents declared that the men had not been refused their tickets or wages. Mr. BRUCE then remarked, that he could not but believe the Aberdare Iron Company's agents, who he and all knew to be highly-respectable men; and that it was too probable that the three workmen having tasted the sweets of the victory over a powerful company, may have again been induced to prefer these complaints. Mr. JAMES said, he had written a letter to Mr. SMITH, with which Mr. EDWARDS immediately produced and read, as also the reply. Mr. BRUCE said, that he was sorry that such a letter, couched in such terms, had been written, and that it had brought forth the reply it deserved. An objection was taken by Mr. EDWARDS to the party summoned, which the bench held would be fatal to the case, and intimated that this proceeding ought not to have been taken, and the four complaints were dismissed. Upon the cases being dismissed, the cashier of the Aberdare Company again tendered the balance of wages due, in the presence of the magistrates, which the men accepted, and a receipt was given for the amount.

CORNISH ENGINES IN AMERICA.—It is about two years since the first Cornish engine was put in operation at the copper mine at Pekiomine. The engine was one that had been used in Cornwall, but still perfect in all its parts. The success attending it has caused several to be constructed there; and Messrs. J. T. SUTTON and Co., of Pennsylvania, are building one, having a cylinder of 50 inches diameter and 10-feet stroke, to be used near the one alluded to; and P. MORRIS and Co. are building two of the same size, for supplying the city of Buffalo with water. The great economy of these engines will, it is expected, lead to their further introduction for the purpose of elevating water, to which they are peculiarly adapted.

MONUMENT TO NEWCOMEN.—We are glad to find that the proposal for raising a monument to Newcomen, the first who applied the power of steam to useful purposes, is likely to be carried into effect, and although it appears a former attempt was made and failed, the promoters are now very sanguine of better success. It is said of Newcomen, who was an ironmonger in Dartmouth, that being one evening in a deep reverie over the fire, he was struck with the motion of the lid of the tea-kettle rising and falling, and emitting alternate puffs of steam. He immediately obtained some other description of vessel from his shop, and from his experiments that evening arose his steam-engine, the first really efficient one, which came into use in 1712, and was almost exclusively used for raising water till 1774, a period of 62 years, and which laid the foundation of all the vast power which the steam-engine at present possesses. It is but justice to the memory of those who have by their genius and perseverance benefitted mankind, that posterity should show some respect to their memory, and we are glad, as a first step, to record in this instance that the vicar of Dartmouth has given permission for the erection of the monument in St Saviour's church in that town.

PHAT GAR.—Taunton was recently "brilliantly illuminated" with gas from peat or turf, a substance abounding in the eastern part of Devonshire. The *Taunton Courier* states that the jet was of unusual brightness, and left no doubt of its decided claim to preference over the ordinary gaseous supply.

ON PRACTICAL MEN.—NO. I.

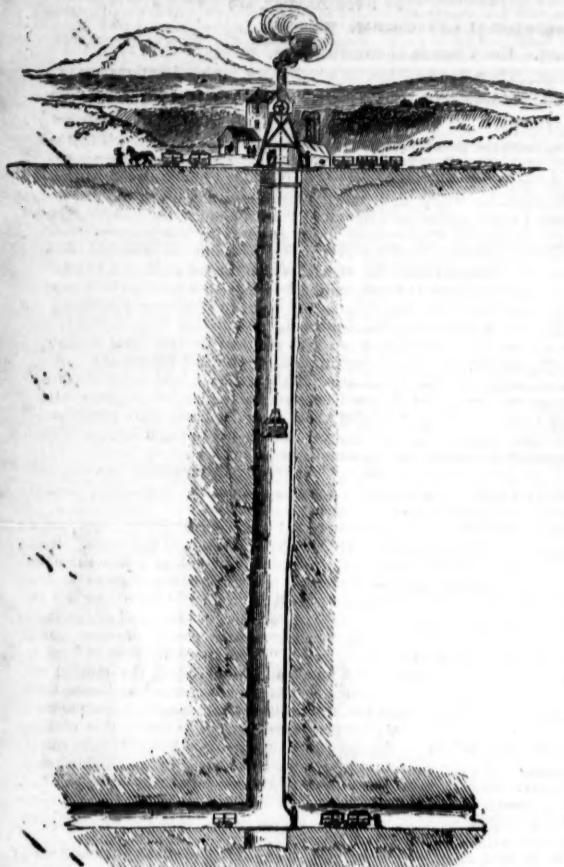
BY DAVID MUSHET, ESQ.

I was much pleased to see Mr. Hopkins's decided remarks on practical training. Every person of experience will recognise their force and correctness. There is no subject on which more confused notions are prevalent, and in which it would be more important to dismiss vague and unsatisfactory notions. In truth, the opinions on training, or what is termed education, form the grand mistake of the age; and the confusion is increased by the multitude of persons who find their interest in advocating a course of confusion. Public lecturers are for having schools established at the public expense, where they may practice their vocation; authors desire increased openings for the disposal of their manuals; the humbler classes of teachers desire employment quite as much as the popular lecturer; booksellers and journalists are ever on the look-out for extended markets to vend their wares; and the natural attempt after eminence is flattered in all, and especially in small, minds by being in a position to appear to know more than their neighbours, and gain applause for conferring the benefit of communicating that knowledge; yet, if we look narrowly into all these means of instruction, we shall see they do very little to advance valuable correct views, or impart any sound practical attainment. A sort of smattering of terms, which are entirely artificial, and rather flatter the acquirer with the belief that he has learned something than give anything really available, except to repeat them again, and are often rather prejudicial than otherwise to such hearers as have not opportunity, experience, or capacity to correct the numerous errors which are universally mixed up in the doings of those who make a trade of instruction, is a course of teaching which will never make a *practical man*, any more than a routine of work will make a man of science.

The truth is, that loudly as interested parties proclaim the omnipotence of education, it has no power whatever of creating real eminence. It can confer *habits*, and education rightly applied will seek to confer the habits which are most certain to be beneficial to the particular class to be dealt with. The extremely contracted signification in which we *now* use the word education—viz., a knowledge of reading, writing, and ciphering—may, if carried on by a forcing system, produce plenty of those hands, which your correspondent remarks are "of no more use than to keep accounts and make plans and sections;" and so overstock the market with these commodities, that hundreds who might have earned an honest living by the sweat of their brow fall into dishonest courses, in consequence of having been trained out of their proper calling. The fact is, that reading, writing, &c., are, *per se*, the merest trifling acquirements. It suits certain schemers and politicians to represent them as very great and difficult matters, over which a great deal of invaluable time is to be spent and wasted, but in reality, where they are needed for use, they are gained with a spontaneous facility, ranking just the next step in degree to the universal properties of articulation and muscular motion.

Those who make it their business to endeavour to divert the children of the labouring classes from honest early occupation, and to employ those precious years in which the

GUTTA PERCHA FOR MINING PURPOSES.



Some good applications of gutta percha have been made by E. Rogers, Esq., C.E., F.G.S., at the Abercarn Fach Mine, Newport, Monmouthshire. A speaking tube, 400 feet long, and 1½ inch diameter, has been placed down the shaft; each end is furnished with a whistle, so that an instantaneous communication can be had between the miners and banksmen. In sinking a new and large shaft, Mr. Rogers has attached to the pump a very strong gutta percha tube, about 20 feet long, 1½ inch in thickness, and tapering from 8 inches down to 4 inches, as the Hogar pipe. Owing to the pliability and lightness of this tube, it admits of the sumping being readily carried on in any part of the shaft, avoiding the difficulty and loss of time hitherto experienced with heavy iron pipes. The blasting in the new shaft of this mine is effected by means of copper wires, insulated with gutta percha; the battery cells are also made of gutta percha. This newly-discovered substance promises to be of great value to miners, as, in addition to the above purposes, it has been successfully applied to pump-buckets, valves, syphons, caps, washers, and tubing for the ventilation of mines.

METALLIC INDUSTRY OF SPAIN IN THE GREAT EXHIBITION.

We have received some interesting notes on the products of Spain from Don Ramon de la Sagra, Spanish Commissioner, and one of the mixed jury. In addition to a classification of the several specimens displayed in the collection, a concise account is given of the localities, quantity of production, &c. From this we glean that, since 1832, there have been 29 furnaces for smelting of iron, constructed according to the English method, in several localities, the principal being Barcelona, Madrid, Seville, and Valencia. The iron series represents the different ores from Biscay, Asturias, Andalusia, and Leon; they are nearly all reduced by the Catalan forge. The galena and argentiferous lead is from Almeria, Asturias, Málaga, Guipúzcoa, and Catalonia. Those from Saragossa contain about 22 per cent. of lead, 8 of antimony, and 2 ounces of silver to the quintal. The copper is from Rio Tinto, Mine of the Miracle, in the Asturias, and that of Castillo de la Guardia, near Seville; this contains about 3½ per cent. of copper, and produces about 20 tons a month. Some of the blue and green carbonates are from Velez, Rubio, and Turre. The argentiferous copper ores are from Calcena, near Saragossa, and contain from 11 to 15 per cent. of copper and 8 ounces of silver to the quintal; that of Fonzuena contains 18 per cent. of copper, and realises about 1s. 2d. the quintal of ore. The zinc is calamine from the Asturias, and blende from Guipúzcoa; this is sold at about 1s. the quintal. Tin is from three localities—Avion, in Galicia, Carrascal, in Zamora, and Orense. The ore is sold at about 15s. the quintal, and the metal at about 4l. the cwt. The antimony is from the Society la Marte, in Zamora, and from Ateca, in Saragossa, where it fetches about 17. 18s. the quintal. Nickel is from the mountains of Casarabonela, near Malaga, where it is exported to Germany; the price at the port is about 2l. the quintal. The cobalt is from mines recently opened at Sierra de Baya and Alburuelas, in Grenada. The serials of mercury are from the well-known mines of Almadan and the Asturias. As this is a Government monopoly, the price is fixed by them, and taken by contract. The gold is from Gerona; it has likewise been found in Grenada and Galicia. There are as well several specimens of coal from the Asturias—salts, sulphur, kaolin, marbles, alabaster, clays, &c. The marbles of Saragossa, when polished, are sold at from 2s. 5s., and 8s. the cubic vara; in the rough state, respectively, 4d., 2s., and 4s. These high prices are retained on account of the heavy cost of transport. The several siliceous products are from the primitive countries, and contain the different varieties, as well as a bastard kind of topaz, sent from Salamanca, which is much used by the jewellers of the province.

We must compliment Don Ramon de la Sagra on the industry he has displayed in the compilation, which is a brief but complete history of the several sources of industry in Spain.

STEAM GENERATING.—Mr. A. Turner, Leicester, has patented a new method of applying heat for generating steam for motive-power, and for other purposes, and in generating heat, and in heating and evaporating fluids. These improvements consist in combining with the use of retorts for generating gas, by the distillation of coal or other matter, the heating of steam and other boilers, by employing for this purpose the otherwise waste heat from the retorts. The arrangement of retorts and boiler which the patentee prefers (without, however, limiting himself thereto), is to employ two retorts, one over the other, heated by a furnace below, and to make the boiler of the wagon shape, but descending at the sides low enough to enclose the retorts and brickwork setting. The course of the heat, after acting on the retorts, may be controlled by flues, and directed around the whole exterior surface of the boiler. Another arrangement (adapted to cylindrical boilers) is to place the retort and setting in the central flue of the boiler, and to provide suitable flues for the passage and circulation of the heated products. It has been found to answer well and economically in practice, when the retorts are not required for gas-making, to allow the fast charge to remain in them—a very trifling consumption of fuel in the furnace being then sufficient to maintain the requisite degree of heat for heating the boiler. *Claim.*—Combining the use of gas retorts with steam or other boilers.

ENORMOUS WATER PIPES.—Messrs. Neilson, of the Hyde Park Foundry, Glasgow, have to supply 35 miles of cast-iron pipes to Liverpool, for the supplying of that city with water. They are 3 ft. 10 in. in diameter, and 1½ in. thick: each length measures fully 12 ft.; and it may give some idea of their immense size, when it is stated that in every one there are nearly 4 tons of iron. Upwards of 1200 have already been shipped for Liverpool. As may be supposed, the casting of these enormous pipes is a matter of some difficulty: the operation employs a considerable number of hands; and the average number of lengths turned out does not exceed five per day, which involves a consumption of nearly 20 tons of iron. Every pipe before leaving the foundry is subjected to a severe test by hydraulic pressure, so that their strength is put beyond doubt.

Original Correspondence.

THE TRUCK SYSTEM.

SIR.—The letter by Mr. Fothergill, in your last Journal, is just such a statement as I expected to see. I have no acquaintance whatever with any particulars of the case, except from the successive notices in your pages; but no person of ordinary penetration could fail to perceive, in reading the report of the meeting in your last, that there lay at the bottom the grand engine of our days—"false pretences." Bodies of shopkeepers are not liable to violent accesses of benevolence and determined attacks of disinterestedness. There is an old controversy with the political economists, whether it is best that large capital shall be made available for supplying the public with superior articles at inferior prices, or that small capitalists are at a gain of enormous profits to furnish worse goods at higher cost. Without ranging over the wide field this discussion embraces, it will certainly be admitted that in the particular case where the food and clothing of the labourer is in question, he at least ought not to be made to buy bad things dear for the support of a theory. You will permit me to say that I am certain an *actual acquaintance* with the dealings of the petty traders who prey upon the earnings of the working men in mineral districts would throw a new light upon your views of the present dispute. It may be very agreeable to suppose that the workmen who deal with them are immediately translated into a paradise of honesty, but unfortunately it is not true as a fact. Be assured—and it is a consideration deserving the greatest attention from the philanthropist as a deep and serious evil—that in general the labouring man pays for those necessities of life which are the *all his hard earnings can command*, from 10 to 20 per cent. *more in price*, besides *inferiority of quality*, than is given by those classes whose *superfluous* far exceed the value of the labourer's sole necessities.

It is a painful and a serious fact, that out of the pittance which the labourer wrests by the sweat of his brow one-fourth, in ordinary cases, passes away without himself or his family deriving any benefit from it. You would not regard the one side of the present question as outer darkness, and the other all *couleur de rose*, were you practically experienced in the manoeuvres by which the general shopkeeper gets the labourer into his power, and keeps him there under the screw of extortion. As one slight item in the account, you must not forget, where there are large bodies of men, there are also numbers of agents of different grades of scrupulousness, and *almost as obvious* to mercenary motives as any proprietors can be represented. Where the proprietors of large works will take the trouble to have a shop established for the men, and *see that it is honestly conducted*, it is an equally well-known and established fact that the labourers' earnings become of nearly double the value. The men know it and acknowledge it; and nothing, likewise, is better known than *who* it is that revile and attack such establishments. There is no great deal of compulsion required to lead the labourer to buy good things cheap. The real grievance which breeds complaint is felt by those who lose the power of compelling them to buy bad things dear. It is most right that there should be such a law as the Truck Act; it is of vital importance to the well-being of a country that the labourer should be secured in his hire, and protected from imposition. The present enactment was passed at a time when great abuses had arisen under the disorder of internal commerce, occasioned by the stagnation of the peace, the failure of the harvests, and the fearful depreciation of property, brought about by the legislative miscalculations of the anti-paper currency men. Enactments for the protection of labour can never be too explicit or severe, but the abuses which gave rise to that Act could not occur now, even were it absent or repealed; while, on the other hand, the abuses which *do* occur, and to which little or no attention is directed, because they have not received public currency and repute by the stamp of legislative reprobation, are to the full as oppressive to the working man, and even more so from the difficulty of laying the finger of law upon them. There is very little attraction to the proprietors of large works in the business of a general dealer. Honest agents are scarce enough for the absolute necessity of the works without the entanglement of such additional anxiety; but if the whole matter be inquired into without prejudice, it will be found there is no way in which masters can confer more substantial benefits upon their men than by shielding them from the competition of the petty trader; and that all that exaggerated language which *parties* employs to compass its ends, is quite inapplicable to this subject. The labourers' necessities hold a very different position to the higher ranges of goods in the warfare of competition. *They must be had*; the shopkeeper knows it, and he acts accordingly. I am glad to hear that there is "a party widely disseminated, totally disinterested from pecuniary considerations," who are devoting themselves to the well-being of the labourer. The existence of so pure a combination is an improved feature in society, but until I know more of their doings than is revealed by the facts in Mr. Fothergill's letter, I cannot avoid recollecting the old definition, "that party is the madness of many for the gain of a few." The position realised by those ironmasters who have carried on their works during late years has been "the loss of the few for the gain of the many." This deserves a *little consideration* from those who are eager to serve the men by flourishes of execration against their masters. There has been quite little money enough to divide between the parties *principally* concerned, and there is neither moral duty nor obligation why a third should step in for a share. The terrestrial workmen have been living tolerably by their employers' loss; they could only boast of the same abridged footing as their diabolical masters were a portion of this maintenance sliced off for the celestial shopkeeper.—DAVID MUSHET: June 20.

THE "PRACTICAL MAN."

SIR.—Your correspondent of this designation has, during some weeks, so perseveringly (and, I think, as respects himself it will be admitted successfully) demonstrated that mining is totally devoid of science; that those who attempt to apply it to the subject have no light but that of fiction and fancy, and, therefore, are in that degree, worse than the practical man who is utterly in the dark; that, in short, the entire question is haphazard and confused; without a single principle of common sense, and (aided by other correspondents) equally devoid of common honesty, his best argument amounting to this, that what he does not understand no one else can, that it is hardly surprising, under such an exposure, the mining market should, as it appears, have been depressed by gloom and melancholy, for we are justified in supposing that persons having a stake in such property may have taken the pains to wade through the interminable confusion of "A Practical Man's" demonstrations. At such a crisis it must, indeed, be a very great relief to read in your pages the lectures by Captain Charles Thomas, delivered at Camborne. They are a green spot in the desert, a light to the nearly shipwrecked mariner, and adventurers may take new courage, and lift up their drooping spirits at a discovery that matters are not quite so bad as they feared; that even in Camborne, which has been so assiduously represented as the head-quarters of mining ignorance and perplexity, there is at least one "Practical Man" who can deal practically with the impracticable subject; who is able to see beyond the point of his pick, and capable of conducting his operations by fact and observation, under guidance of rational views and principles.

June 20.

DAVID MUSHET.

GALVANIC BLASTING OF ROCKS IN SCOTLAND.

SIR.—The valuable application of the galvanic current to this purpose has recently been making considerable progress in Scotland. Some of our best quarrying operations, especially in the dislodgment of large masses of rock, are now conducted with greater precision and safety than ever could be attained by the old method of blasting. I had the pleasure lately of witnessing one of these *monstre* blast, at the Red-hall Quarry, near Edinburgh, wherein the great superiority of the galvanic blasting, by its simultaneous and unfailing effect, was well illustrated. Some of your readers may, perhaps, be interested in an account of this application, which occurred in the Grange Quarry, in the neighbourhood of Burntisland.

The spirited lessees of this extensive freestone deposit have for a considerable time back employed this patent agent in the blasting of rock, and some time ago there was an exhibition of the process on a somewhat magnificent scale. The mass of freestone which it was intended to dislodge was one which protruded from the face of the quarry, being a huge body of *liver* rock. On the upper surface of this mass, and in a line with the face of the quarry, from which it was to be severed, there were six vertical perforations, about 10 feet apart from each other. Each bore was 40 feet in depth, reaching to the bed on which the block reposed, and 300 lbs. of gunpowder were distributed amongst the six, thus giving 50 lbs. to each. The wires for conveying the subtle agent of ignition to the explosive material deposited in each perforation in the rocky mass having been properly adjusted, and connected with the galvanic machine, every thing was ready for the experiment. The battery was then placed in the

trough containing the requisite acidulous solution, and the operator drawing the movable disc along the cylindrical rod which stretched across the top of the battery till it came in contact with the fixed disc, thus completing the galvanic circuit, the cartridge wires were quickly and simultaneously heated, the powder ignited, and the object was gained, the whole operation being eminently successful. There was no terrific explosion, and the enormous block thus dislodged moved quickly, but gently and quietly, forward on its bed. On examining the vast block which had thus been riven from its place, it was found that it had been completely separated from the parent rock in the rear, a fissure about 5 inches wide, and quite smooth on each side, reaching from the top down to the depth of 40 feet, while in front it overshot its bed to the same extent. This Cyclopean mass of beautiful sandstone measured 63 feet in length, 31 in breadth, and 40 in depth. Its cubic contents amount to 78,120 feet, which, at 14 cubic feet per ton, gives 5580 tons as its weight. The total length of wire employed in the operation measured about 500 feet. The battery used on this occasion was one of considerable power, the copper and zinc plates in it being 48 in number, each having a surface of 12 inches by 11. It was constructed by Mr. Kemp, of Edinburgh.—A. M.: Edinburgh, June 22.

BLASTING IN MINES BY ELECTRICITY.

SIR.—In a recent German paper mention is made of some experiments lately made at Geneva, under the superintendence of Capt. Fendt, of the Artillery, and in presence of General Dufour, and other officers, upon a new method of blasting in mines. The account given of the process is so short that one cannot well understand it. It is merely said that electricity is the agent employed, and that it is generated in a small box (a queer kind of statement), and conducted to the desired spot by means of a copper wire. By this arrangement Capt. Fendt, it is added, produced an explosion, at the distance of 600 ft., the instant the signal was given. The account concludes by stating that the method employed met with the approbation of all competent judges in such matters. Perhaps some of your correspondents may know something of the details of the method; if so, they would greatly oblige many persons by communicating the particulars through the Journal.

Are you aware that the workings at the celebrated old silver mines of Deutschbrod, in Bohemia, are about to be resumed—a company consisting of 149 members having been constituted for this purpose? Some information from there would also be desirable.—L.: Madrid, June 14.

LIQUEFACTION OF DIAMONDS.

SIR.—Having a channel of private conveyance for a letter, embracing some strictures upon a paper which appears in the *Mining Journal* of 7th June, signed "W. F. S.," I present it to your notice, in the hope that it may find insertion. In attempting to resuscitate the phlogistic doctrine of Priestley, and other philosophers, "W. F. S." has seriously misled himself and your readers, by asserting, amongst other fallacies, the identity of the operation of thermom, *alias* calor, *alias* common heat, with magnetic, galvanic, and voltaic electricity. "A metal (as he says) may be an earth *su generis*," or all metals may result from one identical earth or matter, modified into 50 varieties by its quantitative associations with the mundane formative elements—ELECTRON, PHOETON, THERMON, ASTRON, PHORIN, &c.—in the several states of oxide, and the equally compound metallic form. A metal may be—nay, in my opinion, unquestionably—is—its oxide with a formative element (ELECTRO-ASTRON), substituted for, and taking the place in, the oxide of THERMO OXYGEN, denominated by the chemical folks anterior to Lavoisier "PHLOGISTON"—a word derived from the Greek for "I burn." This position of philosophy can be demonstrated by innumerable facts of precise science, and consequently and in like manner as the *bond of matter which induces solidity*, as opposed to the liquid and fluid conditions must be, as it is, antithetic and antagonistic to the *action or force* that converts denser matter into less dense states and forms of matter, *phlogiston* (or whatever else it may be called) *cannot* be identical with electricity, or any of its congeneric bodies.

The great error which chemists commit is the assumption in general of the *immaterial and correlative* nature of the formative elements—ELECTRON, ASTRON, PHOETON, THERMON, PHORIN, &c.—instead of the more reasonable notion that these peculiar bodies are really ponderous, if not ponderable, substances, even as oxygen, hydrogen, and nitrogen are, and interchangeable, and capable of reciprocal combination with all denominations of matter in the 80,000 distinct compounds with which chemists are acquainted. Chemists there are, and have been, besides "W. F. S.," that opined, and do opine, the capability, nay, the necessity, of ELECTRON, and the other formative elements of matter, to combine with material bodies in general, both atomically and in molecular associations (the opinion of Sir Richard Phillips being exactly that of "W. F. S."); so that on this point "W. F. S." has originated no novelty. But he is akin to those whom he twists, for he, too, adopts a vulgar and obsolete error in his chemical expletives. He says "the alkaline bases have a much greater affinity for oxygen than for the electric fluid." Is it, then, true that substances between which there is a principle of kindred (otherwise than that of oxidic ratios) have a greater disposition to combine chemically than those bodies which have fewest or no principles in common? If sulphuric acid would not combine with water, *discharging thereby an equivalent of its ingredient THERMON*, then "W. F. S." might rationally use the term, which signifies "kindred," or similarity of property, to express a predisposition to combine, which, till that impossible time may be better expressed by antagonism, affection, or differential oxygenic polarity, carbon could, therefore, be liquified *only* by THERMON, the matter of heat, solidified by ASTRO-ELECTRON, the molecule-formative principle *crystallised* by PHOETON, and coloured by variations in the proportions of these formative elements with hydrogen, and other corporeal elementary impurities.

Whilst I am a claimant on your indulgence, permit me to allude to the all-absorbing topic of "Foucault's supposed proof of the earth's rotation" to say that, having observed in 1849 that a pendulum, poised delicately by its centre of gyration, tended to, and at length oscillated in, the plane of the magnetic meridian *approximatively*, I was not prepared otherwise than to dissent from Foucault's assumption. I had noticed, prior to this date, that clocks are subject to great variations of rate by changes in their position relatively to the direction of the magnetic needle; and since the vibrations of a pendulum are subject to the same physical laws as the oscillations of the magnetic guomon, it is not unreasonable to believe in this property of the pendulum in common with that of the compass needle.

Paris, June 9.

WM. RADLEY, Ch. E.

MERIONETHSHIRE SLATE AND SLAB QUARRY.—In the Masters' Court, on Wednesday, Mr. Hancock appeared to argue the case of Mr. Stephen Hooper, whom Mr. Hetherington (counsel for the official manager) sought to have settled on the list of contributors. It appeared that the directors of the company, exercising the powers conferred upon them by the deed of settlement, had declared the shares of Mr. Hooper, and other persons who had not paid up call, forfeited, and directed that a new list of shareholders should be prepared. For this purpose a committee was appointed, who made out a list which did not contain the name of Mr. Hooper, and upon these grounds it was contended that gentleman was no longer a member of the company, and, consequently, was not liable to be fixed as a contributor. Upon the part of the official manager, Mr. Ernest, it was stated that the written notice of the forfeiture of the shares had not been given by the directors to Mr. Hooper. Such notice was expressly mentioned in the deed, and that, therefore, Mr. Hooper, it was argued, was not released from being a member of the company. His Honour said that, taking all the circumstances into consideration, and having regard to the fact that the board had directed notice, according to the deed, to be sent, he would not put Mr. Hooper on the list without being compelled so to do. It is said that above 40 other shareholders will be struck off, as the result of this decision.

INFRINGEMENT OF PATENT.—In the Court of Exchequer, on Wednesday, the cause, *Newton v. Vaucher*, was heard. The action had been heard before Mr. Baron Platt at the Liverpool Assizes, when a verdict was given for the plaintiff, but a *rul sisi* had been obtained, calling upon him to show cause why the verdict should not be set aside. The plaintiff had obtained a patent in 1843, for "improvements in the construction of boxes for the axles or axle-boxes of locomotive-engines and carriages, and for the bearings or journals of machinery in general," consisting of a soft metal, principally tin, to axle-boxes and bearings to diminish friction, and save wear and tear and oil. The defence was a previous patent in 1838, for "improvements in fire-engines, water-engines, and other hydraulic machines and apparatus for raising or propelling water and other fluids, some of which improvements are also applicable to steam-engines," and that plaintiff's patent was an infringement of this earlier one. The plaintiff contended that the two patents were perfectly distinct, his being to prevent friction, defendant's to prevent escape of fluids, as a metallic *in lieu* of the usual packing. A prior action was referred to, where plaintiff obtained a verdict in 1845 against the Grand Junction Railway Company for a similar infringement. The Court coincided with the two juries, and decided in favour of plaintiff, the *rul sisi* being discharged.

GREAT BRYN CONSOLS COPPER AND TIN MINE,
Situé in the parish of WITHEL, near BOD MIN. CORNWALL.
Applications for the remaining shares to be made to the Committee of Management;
or to Mr. Lelean, No. 5, Crosby-hall Chambers, Bishopsgate-street, London.

WHEAL GATE-POST (COPPER).
IN THE TAVISTOCK DISTRICT.
CONDUCTED ON THE COST-BOOK SYSTEM.

In 4000 shares.—Dues 1-15th.
This extensive and valuable sett, which, so far as surface indications are concerned, is allowed by all practical men who have inspected it, to offer inducements rarely equalled to persons desirous of speculating in mines, is situated in the parish of Whitchurch, in the county of Devon, about two miles east of the town of Tavistock.

The appellation given to this mining sett arises from the discovery of a "gate-post" in one of the fields, weighing about 12 cwt., which was found by assay to contain upwards of 30 per cent. of fine copper, and several other large blocks, of a similar quality, weighing upwards of 3 cwt. each, also found in the hedge on the same grounds.

In opening the ground by coateining, &c., several lodes and cross-courses have been discovered, the nature of which have so thoroughly satisfied the proprietors, that they have hitherto abstained from making reports in the usual way, and also from publishing any of the numerous favourable and sanguine opinions given by the agents of other mines in the district, who are daily attracted to the workings; and they have adopted this course from a desire that any persons wishing to become interested in the adventure should either make a personal survey, or cause an inspection to be made by some practical agent in whose judgment they have confidence, so that they may satisfy themselves, through their own source, as to the legitimacy of the undertaking.

Any further particulars can be obtained by application to the proprietors, Mr. John White, of the Tavistock Brewery; or Mr. Michael Whitburn, mine agent, Tavistock.

CARADON WOOD LEAD MINE.
CONDUCTED ON THE COST-BOOK SYSTEM.

This MINE is situated in the parish of LINKINGHORNE, in CORNWALL, and in the district between the Caradon, Holmbois, Trelawny, Trethane, and other mines of considerable note.

The operations are in progress, and a working capital of several thousand pounds remain unexpended, which it is confidently expected will place the mine in a profitable state, and consequently no further calls are anticipated.

A limited number of shares are to be disposed of—applications for which may be made to Messrs. John Shewell and Sons, stock and sharebrokers, 23, Tokenhouse-yard, from whom may be obtained the reports of the following well-known and experienced mining captains, and other particulars.—Captains Middleton, of East Wheal Rose; R. Dunstan, of West Caradon; J. Komp and T. Ellery, of Trelawny; James Osborn, of Wheal Venton; and S. Richards, of Wheal Trethane.

EXTRACTS FROM REPORTS.

Caradon Wood Mine, April 21.—I may observe that the flockans which prevail so much in the north and south lodes must be looked upon as a very favourable indication for lead in the lodes, as in the district in which I am concerned they are regarded as the most favourable indication we can find for a good course of lead ore, which with us makes almost entirely in the flockans. A very good feature in Caradon Wood Mine is that the lodes run for several hundred fathoms through a valley, which situation, in my experience, I have always found to be the best for making rich lead lodes.

JOHN MIDDLETON, Chief Agent, East Wheal Rose.

The western lode is about 5 feet wide, it is also composed of gossan and quartz, with a leader of flockan about 2 feet wide, in which very fine granular lead is found, at about 12 or 15 feet below the surface. This extraordinary lode passes northward into a beautiful and extensive plain, where we have every reason to expect abundance of lead, not only from its position, but from the character of the surrounding country, it being what is commonly called a lead killas. The east and west lodes pass through the aforementioned lodes, and no doubt contributes to their value, by acting as a cross-course or feeder to the more prominent lodes. These facts, when taken together with the peculiar advantage of an abundant supply of water at all seasons of the year, to command any amount of machinery, are in themselves sufficient to give the strongest recommendation that a speculation of this kind can require. ROBERT DUNSTAN, of West Caradon.

The country is a fine soft whitish grey killas, very congenial for lead; sinking a shaft, and driving upon the course of the lodes, may be done rapidly, if good drainage machinery be used to keep the work dry, and for this purpose a plentiful supply of water-power may be had at all seasons of the year from the River Lynher, which runs through the sett, and is one of the principal Cornish rivers. JOSEPH KEMP, of Trelawny.

Having a plentiful supply of water available running through the sett to work the lodes, to any reasonable depth, and looking at the congenial nature of the strata, with other local advantages, I am persuaded with a comparatively small capital very favourable results may be reasonably calculated upon. THOMAS ELLERY, of Trelawny Mine.

In conclusion, I feel it my duty to state that the first lode spoken of is a majestic one, and fully warrants the outlay necessary to give it a trial, if no other lodes existed in the sett, and the situation of the mine in the bottom of a deep and wide valley of clay-slate, with a never-failing supply of water for machinery of every description, gives it advantages geological and mechanical that we seldom find.

JAMES OSBORN, of Wheal Venton.

The two north and south courses, or lead lodes, cross a beautiful valley in a diagonal direction, in a very soft and congenial killas stratum as is seldom found. The sett is to the north of Trelawny, Mary Ann, and Trethane Lead Mines, and about midway between the Caradon Mines and the Callington and Holmbois Mines. Taking into consideration the very promising character of those lodes, and the stratum through which they traverse, I consider them of great promise, and well worthy of a spirited trial, more particularly as the large river Lynher runs through the sett, and is available for draining and any other purpose, to a considerable extent, throughout the driest season of the year.

S. RICHARDS, of Wheal Trethane.

WHEAL CATHERINE (SILVER-LEAD).
Situé in the parish of BRADDOCK, CORNWALL.
Divided into 1024 shares.—Dues 1-15th.

CONDUCTED ON THE COST-BOOK PRINCIPLE.

Purser—Edward A. Crouch, of West Caradon.

Agent—Captain Henry Taylor, of West Caradon.

Bankers—Devon and Cornwall Bank, Liskeard.

OFFICES.—No. 51, THREADNEEDLE-STREET, LONDON.

This sett is held under lease, granted by the Right Hon. Baroness Grenville, of Droppedmore, in the county of Bucks, for 21 years at 1-15th dues, and is most conveniently situated within 20 yards of the main road, midway between Liskeard and Bodmin.

Mining operations have been commenced, and preparations are now making for the erection of a powerful water-wheel, and it is confidently anticipated that the lodes will soon be developed to a profitable extent.

A shaft is in course of sinking upon the main lode, which is composed of gossan, spar, pyrite, mica, with a light-blue flockan, containing fine stones and prills of lead.

Looking at the geological position of this sett, the congenial nature of the strata, together with the peculiar advantages of an abundant supply of water at all seasons of the year, so as to command any amount of machinery, with a plentiful supply of timber, and other local advantages, renders this adventure of more than ordinary promise, and with a comparatively small outlay the most favourable results may reasonably be anticipated.

The mine is divided into 1024 shares—512 have been taken by shareholders in other mines in the immediate neighbourhood—the remaining 512 shares will be issued to the public at £2 10s. each, which includes a call of 10s. per share already made upon the whole 1024 shares, which sum will be applied for working expenses.

Application for the remaining shares and prospectuses to be made to T. Fuller, No. 51, Threadneedle-street, London; Edward A. Crouch, Liskeard, Cornwall; or on or before the 5th July inst.; and every information may be obtained, and reports, with plans and specimens of the ore, may be seen at the office of the company.

THE DEVON HAYTOR GRANITE COMPANY,
UPON THE COST-BOOK SYSTEM.

In 20,000 paid-up shares, or shares, of £1 each, without further liability.

OFFICES.—No. 59, KING WILLIAM-STREET, CITY.

This COMPANY is FORMED to WORK the celebrated HAYTOR GRANITE QUARRIES, situated at HAYTOR, SOUTH DEVON, which comprise 10 of the largest quarries in England. They are held under lease direct from the Duke of Somerset, at a low annual rent without royalty.

It is well-known that the granite from these quarries is superior to that of any other in England or Scotland, both in hardness and durability, and it has already been used in London Bridge, Goldsmiths' Hall, Christ's Hospital, Fishmongers' Hall, &c.

The quarries have been recently re-opened, and arrangements made for furnishing an extensive supply, and embarking in corresponding contracts, for which purpose additional capital is required.

The amount now proposed to be raised will enable the Company fully to develop the quarries; and after the closest investigation, the Directors feel perfectly justified in anticipating a net profit of from 20 to 25 per cent.

For prospectuses, containing a list of directors, and all other information, apply to the purser, Mr. A. W. Follett, at the office of the Company; to the solicitors, Messrs. Terrell and Matthews, 30, Basinghall-street; or Mr. R. E. Little, stockbroker, No. 11, Warwick-court, Throgmorton-street.

GALLT-Y-MAEN SILVER-LEAD MINING COMPANY,
LORDSHIP OF MOWDWDY, COUNTY MERIONETH.

NOW IN WORK ON THE COST-BOOK PRINCIPLE.

In 12,000 shares, of £3 each.

Deposit £2 per share, to be paid upon transfer.—No further call to be made, unless with the consent of the shareholders in General Meeting assembled.

COMMITTEE OF MANAGEMENT.

A. A. DORIA, Esq., Lincoln's Inn.

WILLIAM WATSON JEFFREY, Esq., 4, New Broad-street.

JAMES T. KIRKWOOD, Esq., Woodland-terrace, Greenwich.

CHARLES MAPLESTONE, Esq., 27, Bucklersbury.

HENRY MOSS, Esq., 3, Church-court, Clement's-lane.

(With power to increase their number.)

Manager of the Mines.—Mr. Charles Samuel Richardson, 15, Old Broad-street.

Solicitor.—Edward Maniere, Esq., 2, Scott's-yard, Bush-lane.

Bankers.—Messrs. Martin, Stone, and Martins, Lombard-street.

Broker.—John Guillemin, Esq., 3, Bartholomew-lane.

Purser.—Austin Edwards, Esq., Brook-green, Hammersmith.

OFFICES.—3, SHERBORNE-LANE, LONDON.

The Gallt-y-Maen sett extends over about 224 acres of rich mineral land, and is situated in the lordship of Mowdwy, in the county of Merioneth; it is held under lease from the lord of the said manor, at a royalty of 1-14th, for a term of 21 years, and a sleeping rent of £100 per annum.

Gallt-y-Maen is in the vicinity of the celebrated Great Cowarch Silver-Lead Mine, which is producing large quantities of ore, yielding 70 to 80 per cent. of lead, in addition to a considerable quantity of silver.

Prospectuses and all other information to be had upon application at the offices of the Company; or to John Guillemin, Esq., Stock Broker, 3, Bartholomew-lane.

TRENAUL T LIME QUARRIES COMPANY,
6000 parts, or shares, of £1 each.

CONDUCTED ON THE COST-BOOK PRINCIPLE.

Which exempts shareholders from any liability beyond the amount of their shares, and enables them to withdraw at any time by giving notice to that effect.

Prospectuses, containing the Rules and Regulations in full, Maps, and every information, may be obtained at the offices, 30, Bucklersbury.

CARDIGANSHIRE MINING ASSOCIATION.

In certificates of five shares each, in 10,000 shares, of £2 each.

Conducted on the "Cost-book" Principle—without further call.

COMMITTEE OF MANAGEMENT.

GEORGE HARRIS CHILD, Esq., 48, Mark-lane.

THOMAS HAWES, Esq., Club Chambers, Regent-street.

HENRY FRANCIS HOME, Esq., 106, Gloucester-terrace, Hyde-park.

GEORGE HELMORE, Esq., Millbank-street, Westminster.

JON PETER KNIGHT, Esq., Hibernal Chambers, London-bride, Southwark.

BANKERS.—Messrs. Rogers, Olding and Co., Clement's-lane, Lombard-street.

OFFICES.—No. 32, GREAT WINCHESTER-STREET.

Prospectuses and Reports can be obtained on application at the Company's offices, No. 32, Great Winchester-street; or to Edward Lloyd Morgan, Esq., stockbroker, Bank Chambers, London.

COLONIAL BANK.—The Court of Directors of the Colonial

Bank hereby give Notice, that, in pursuance of the provisions of the Charter, a HALF-YEARLY GENERAL MEETING of the proprietors will be HELD on Tuesday, the 8th of July, 1851, at Twelve o'clock precisely, at the London Tavern, Bishopsgate-street, to receive the Report of the proceedings of the Corporation.

The Transfer Books of the Corporation will be closed on the 21st inst., and re-opened on the 21st July next.

By order of the Court of Directors,

C. A. CALVERT, Secretary.

13, Bishopsgate-street-within, June 14, 1851.

Moved by E. Divett, Esq., M.P., seconded by R. Chalmers, Esq..

1. That the report of the company's operations, as now read, be adopted for the Tenth Annual Report of the South Australian Banking Company, and printed and circulated under the direction of the Court of Directors; also that the accounts of the company's affairs to the 26th May last (as now submitted) be approved.

Moved by J. R. Mills, Esq., seconded by E. J. S. Trimmer, Esq..

2. That the recommendation of the directors to declare for the ensuing year a dividend of six per cent. per annum, with a further amount of 8s. per share (both clear of income tax), be adopted, and that they be authorised to pay the same half-yearly as heretofore.

Moved by J. H. Storey, Esq., seconded by J. Brewster, Esq..

3. That John Wheelton and John Bazley White, Esq., be re-elected as directors, and that William Richards, Esq., be elected a director in the room of Ald. Sir John Pirie, Bart., deceased.

Moved by E. W. Smith, Esq., seconded by Rev. T. Simpson.

4. That the warmest thanks of the meeting be given to the directors for their zealous and successful labours on behalf of the company.

Moved by E. Divett, Esq., M.P., seconded by G. Miller, Esq..

5. That the cordial thanks of the proprietors be given to Edward Stephens, Esq., for his able management of the company's colonial affairs, accompanied by the expression of their pleasure in seeing him in England, and that G. Morphet and E. J. S. Trimmer, Esq.s., late local directors, with E. J. Wheeler, Esq., the London manager, be thanked for their valuable exertions in promoting the company's interests.

EDMUND J. WHEELER, Manager.

The following resolutions were unanimously adopted:

Moved by the Chairman; seconded by W. B. Gurney, Esq..

1. That the Report now read be adopted for the Fifteenth Annual Report of the South Australian Company, and printed and circulated under the direction of the board; also, that the accounts of the Company's affairs, as now submitted, be approved.

Moved by the Rev. Thomas Simpson; seconded by J. H. Storey, Esq..

2. That a dividend, at the rate of 6 per cent. per annum (free of income tax), be recommended by the Directors; be now declared, being at the rate of 21s. per share;

and that the Directors be authorised to pay the same half-yearly, as heretofore.

Moved by Robert Oakes, Esq., seconded by Charles Roberts, Esq..

3. That Sir Culling Eardley, Bart., and Thomas Fussell, Esq., who retire by rotation, be re-elected directors; and that John Bazley White, Esq., and Wm. Richards, Esq., be re-elected auditors.

Moved by Edward Divett, Esq., M.P.; seconded by John Bazley White, Esq..

4. That in order to meet the necessary additional outlay which may be required for the improvement of the Company's property in the colony, and to liquidate existing liabilities, this meeting authorises the Board of Directors to issue at par to each shareholder who may be disposed to take them, one new £25 share for every four at present held—a deposit of £2 10s. per share to be paid on or before the 24th December next. The Directors have power to distribute such shares as may not have been taken up at the above date to those shareholders who may desire to have them, or to dispose of them to the public to such an extent as they may deem advisable. Also to make such calls, and at such times, as they may think necessary, and to receive payment in full of the amount of such shares, according to priority of application, to the extent they may deem conducive to the interests of the Company. The shares so paid in full being placed on the same footing as the other shares of the Company.

Moved by W. B. Gurney, Esq.; seconded by John Bazley, White, Esq..

5. That the cordial thanks of the meeting be given to the Chairman and Directors, for the zeal and ability with which they have conducted the affairs of the Company during the past year.

Moved by Edward Divett,

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5129	Alfred Consols (copper), Phillack	3	£ 1 1 to 5th April	60 6 May	15 16	16 16 1/2
1248	Allt-y-Crib (silver-lead), Talbont, Wales	5	—	0 2 6	10	—
1624	Ballewiddon (tin), St. Just	11 1/2	8 6	0 9 to April	8 1/2	—
4000	Bedford United (copper), Tavistock, Devon	2 1/2	2 8	0 5 to March	7 1/2	7 1/2
64	Bosswall Downs (tin), St. Just	—	750 0 to May, 1849	100	—	—
100	Botallack (tin and copper), St. Just	18 2 1/2	440 0 to 5th April	5 0 to May	205 210	—
1000	Callington (lead and copper), Callington, Devon	28	6 0 to Sept., 1847	—	6 1/2	—
1000	Carn Brea (copper and tin), Illogan	15	202 0 to June, 1851	2 0 to June	105	—
1024	Chynwes, St. Endor, Cornwall	3 1/2	2 6 8	—	6 1/2	6 1/2
138	Comfort (copper), Gwennap, Cornwall	65	—	—	41	—
256	Condurrow (copper and tin), Camborne, Cornwall	20	11 0	—	110	—
1024	Devon Great Consols (copper), Tavistock	1	224 10 to March	8 0 to May	300	300 310
180	Dolcoth (copper and tin), Camborne	252	854 14 to 1847	—	16	—
128	East Pool (tin and copper), Pool, Illogan, Cornwall	24 1/2	233 0 to 1843	—	176	—
94	East Wheal Froty (copper), Illogan, Cornwall	125	42 10	—	130	—
128	East Wheal Rose (silver-lead), Newlyn	50	295 0 to 5th April	15 0 to May	550	—
494	Fowey Consols (copper), Tavardreath	40	—	—	30	—
3760	General Mining Company for Ireland (copper)	1 1/2	35 per cent. to June	0 10 10 per cent.	5 1/2	—
100	Goginan (lead), Cardiganshire, Wales	5	440 0	—	200	—
96	Great Consols (copper), Gwennap, Cornwall	1000	352 6 8 to January	—	200	—
119	Great Wark (tin), Germoe	100	—	7 10 to May	7	—
1024	Herodsfoot (lead), near Liskeard, Cornwall	8	—	0 5	7	—
1000	Holmbois (lead and copper), Callington	24	25 0 to Feb., 1844	Feb., 1844	20	145 154
1000	Lewis (tin and copper), St. Erth	17	1 0 to 9th Feb.	0 10 to April	20 1/2	20 21
160	Levant (copper and tin), St. Just	—	77 0 to 5th April	5 0	160	—
100	Lisburne (lead), Cardiganshire, Wales	75	620 0	20 0	700	—
100	North Pool (copper and tin), Pool	45	390 0 to 4th April	15 0	500	—
140	North Roskear (copper), Camborne	10	50 0 to February	2 10 to May	155	—
6000	North Wheal Bassett (copper and tin)	4	1 1 to 5th April	—	13	—
128	Par Consols (copper), St. Blazey	552	374 0	—	650	—
1160	Perran St. George (copper and tin)	21 1/2	1 5 to March	0 10 to 4th June	40	—
560	Providence Mines (tin), Uny Lelant	20 1/2	11 17 to February	1 0 to May	25	—
256	South Caradon (copper), St. Cleer	24	250 0	2 10	130	135
256	South Tolgus (copper), Redruth, Cornwall	16	21 10 to 5th April	2 10	160	—
248	South Wheal Frances (copper), Illogan	80	89 15	8 0	260	—
1C24	Spearne Consols (tin), St. Just, Cornwall	1 1/2	2 15	—	—	—
94	St. Ives Consols (tin), St. Ives	80	851 0 to February	0 10 to March	11 1/2	11 1/2
1000	Star Park and Camborne Vein (copper), Cornwall	15	11 10	5 0 to May	80	—
9600	Tamar Consols (silver-lead), Beeralston	4	2 11 to July, 1847	—	145 154	154
6000	Tincroft (copper and tin), near Pool	7	5 17 6 to Sept.	7 1/2	64 7 8	7
256	Trewhay (silver-lead), Menheniot	1 1/2	24 15 to January	1 0 to May	15 1/2	16 1/2
5000	Treleigh Consols (copper), Redruth	6	—	2 1/2	—	—
94	Tresavean (copper), Gwennap, Cornwall	20	4680 15 to 1848	—	220	—
120	Trethellan (copper), Camborne	5	402 10 to 5th April	—	14	—
120	Treviskay and Barror (copper)	130	221 15	8 10 to May	200 195	195 200
1024	Wellington (copper & tin), Perranzabuloe	6 1/2	2 2 6	0 5 to March	8 1/2	7
256	West Caradon (copper), Liskeard, Cornwall	20	155 5 to February	2 10 to May	110	107 110 12
512	West Providence (tin), St. Erth	10	225 0 to 1st April	10 0 to 3d June	405 407 1/2	392 1/2
256	West Wheal Bassett (copper), Illogan	10 1/2	5 0	—	64	—
128	West Wheal Brewster (copper), Gwennap, Cornwall	2	142 10 to 9th April	25 0	1050	—
126	West Wheal Friendship (copper) Devon	120	2325 10	—	120	—
4000	Wheat Golden (lead), Perranzabuloe	2	0 10 to March	0 5 to May	7 1/2	—
430	Wheat Lovel (lead and tin), Helston	—	4 0 to 6th April	2 0	20	—
112	Wheat Margaret (tin), Uny Lelant	79	179 0 to March	3 0	140	133 140
512	Wheat Mary Ann (lead), Menheniot	5 1/2	15 5 to 5th April	3 0	59	69 58 57
40	Wheat Owles, St. Just, Cornwall	200	—	—	25	—
240	Wheat Reeth (tin), Uny Lelant	20 1/2	23 10 to February	2 10 to May	87 1/2 90	—
198	Wheat Seton (tin and copper), Camborne, Cornwall	107	199 10 to 5th April	5 0 to April	200	—
520	Wheat Trewhay (silver-lead), Liskeard, Cornwall	3 1/2	26 10	2 0 to May	58	59 60
1024	Wheat Trewhayne (tin and cop.), Gwinnar, Cornwall	9 1/2	4 5 to February	0 15	21 1/2	21 22
5200	Wicklow (copper), Wicklow	5	—	—	20 1/2	—

FOREIGN MINES.

5000	Alton Mining Company (copper), Norway	14 1/2	3 0 to Mar., 1848	—	3	—
10000	Brazilian Imperial (gold), Brazil	24 2	3 17 6 to Dec., 1844	—	24 3	41 1/2 5
12000	Cobre Copper Company (copper), Cuba	40	45 10 to Jan.	42	64 6 2 7	—
10000	Copapo Mining Company (copper), Chile	14	3 3 0 to Oct., 1850	82 to Oct., 1850	64	—
30000	General Mining Association (iron & coal), Nova Scotia	20	6 10 to June, 1851	10a. June, 1851	14	—
2700	Marmato (gold), Columbia	2 1/2	2 0 to June, 1851	12 to June, 1851	10	—
8051	Mexican Company (silver), Mexico	59 1/2	0 6 end of 1846	4s. in 1846	72	—
11000	Royal Santiago (copper), Cuba	10	33 4 0 to July, 1846	—	18 1/2 ex div.	18 1/2
43174	St. John del Rey (gold), Brazil	15	12 17 6 to Dec., 1850	16,500 to June 7	15 1/2	—
	United Mexican (silver), Mexico	A. V. 28 1/2	1 12 6 to Feb., 1851	72. 6d. Feb., 1851	24 3	24 3

Shares.

Paid.	Last Price.	Present Price.	Shares.	Paid.	Last Price.	Present Price.
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1024	Appledore (silver-lead and cop.) St. Ives	2	3	243	Grambler and St. Aubyn (copper)	80	34 35	—
940	Balnloon Consols (tin), Uny Lelant	—	3 1/2 4	6500	Great Bryn Consols (copper and tin)	1	1	—
5000	Bargally (lead), Cairnsmore	—	—	2000	Great Cowarch (silver-lead), Merlonthet	2	3 34	—
905	Barristown (lead), Carrick	5 1/2	5	11000	Great Folgooth (tin), St. Austell	2	2 1/2	6 1/2
3650	Bawden (silver-lead), St. Tathan	—	—	1024	Great Sheba Consols (tin and copper)	6	7 6	—
256	Berrow (copper), Liskeard	2 1/2	3 3 1/2	1024	Great Wheal Alfred, St. Erth and Phillack	4	4 42	5
1500	Bishopstone (silver-lead), Glamorganshire	2 1/2	10	5120	Great Wheal Baddern (tin and silver-lead)	2	5 1/2	—
32	Black Burn, Alston, Cumberland	15	100	5000	Great Wheal Martha (cop.), Stoke Clims.	—	5 1/2	—
5000	Black Craig (lead), Kirkcudbrightshire	5	5	512	Great Wheal Rough Tore Consols (copper)	29	20	—
8000	Blaenavon (iron), South Wales	50	12 1/2	6000	Grove slate Company, Carmel	5	5	—
5000	Bodmin Moon Consols (tin), Wadebridge	5	5	1026	Gustavus Mines (copper), Camborne	6 1/2	6	—
1024	Bodmin Wheal Mary (copper), Bodmin	1	5	512	Hawke's Point (copper), Uny Lelant	7	31 4	—
6000	Bolenowen	2 1/2	4 1/2	1024	Hawkeno (cop.), Calstock, Gunnis Lake	7 1/2	6	—
40	Bolwall and Nanpean (tin), St. Just	—	20	6000	Heington Down (copper), Calstock	24	2	—
1024	Boringdon Park (silver-lead), Plympton	1	5	32	Helvellyn Mining Company, Westmoreland	15	25	—
240	Boscar (tin), St. Just	12 1/2	12 1/2	1500	Hennock (silver-lead), Hennock	2 1/2	1	2
240	Boscar (tin), St. Just	1	2	256	Hennock (silver-lead), Henrath	1	1	2
1024	Bottle Hill (copper), Plympton	1	1 1/2	10000	Hibernian (copper) Ireland	12 1/2	—	—
258	Bridford							